

Eight key issues which the NII report on Japanese MOX fuel should have addressed

Q1. Has all the information been released?

BNFL only admitted it had falsified safety data on MOX fuel after the Independent newspaper found out. Then it repeatedly denied that any data on the fuel sent to Japan was falsified, until data released in Japan, and a memo from the NII, showed otherwise. The new NII report can only be reliable if all the documents and data related to the scandal are released. For example:

- (i) The quality assurance data for all lots of MOX fuel made at Sellafield should be made publicly available on disc, so that it can be independently checked (including all pellet size measurements and the dates that they were made);
- (ii) BNFL's own report on the scandal, produced for Lloyd's Register Quality Assurance, should be made public;
- (iii) All memos relating to the scandal, between BNFL, the NII, Kansai Electric and the UK and Japanese governments and regulators, should be released.

Q2. Has the NII admitted that the falsification was more serious than just 3 workers copying records?

Data released in Japan, and analysed by the Japanese NGOs Green Action and Mihama-no-Kai, shows that other types of falsification probably took place over a much longer period than so far admitted by BNFL. These types of falsification include "squeezing in" pellet sizes so they would meet the specification. For some of the findings there was less than a 0.1% chance that these results would occur without falsification of the data. BNFL this week sacked two more workers, bringing the total to 5, but no managers. Neither BNFL nor the NII has made public a full version of events.

Q3. Why did the NII not detect the full extent of the falsification?

The NII told the Japanese Industry Ministry (MITI) last November that one of the MOX pellet lots sent to Japan (P783) was falsified, but it did not mention the other falsified lots. BNFL did not admit until 15 December that another lot sent to Japan was falsified (P814). The Japanese NGOs found much more falsified pellet data, but it is possible that more still remains undetected. The NII has still not explained why it did not find this falsification with its own statistical analysis.

Q4. Has the NII admitted that the faked "random inspections" were a key part of making sure the fuel met specifications?

BNFL has always claimed that the faked "random inspections" were an extra test, which were not needed, because all the MOX pellets first went through an automated check. The NII has stated in Japan that "the automated 100% check on pellet diameters should ensure that only pellets meeting the agreed specification for diameter have been used in filling fuel rods. As such, this provides high confidence that all of the MOX fuel which has been delivered to Japan will be safe in use". But the data released in Japan shows that seven lots of fuel passed the automated test and then failed the random inspection (Lots P748, P756, P771, P775, P829, P843, P846). This means that faked random inspections could certainly affect the final product.

Q5. Has the NII investigated all the data for other MOX fuel made at Sellafield?

Three MOX fuel assemblies from BNFL were found to be damaged a year after they were loaded into the Beznau 1 reactor in Switzerland in 1996. The quality assurance data for this fuel has not been published. Has the NII now made a full investigation to see whether any checks on this fuel were also falsified, and has it made all the data and memos public?

Q6. Can the NII really guarantee it is "safe" to use the fuel?

The NII has repeatedly stated that it is safe to use BNFL's MOX fuel. But the NII is only legally responsible for safety on UK nuclear sites - it will not be accountable if a nuclear accident occurs while the fuel is being used in another country. MOX fuel is not used in UK reactors, so the NII does not have experience of regulating its use. The quality of nuclear fuel can obviously affect safety as well as reactor performance. MOX is a type of fuel which, because of the plutonium in it, could have even worse consequences in a major nuclear accident than normal uranium fuel.

Q7. Has the NII claimed that the problem is already being "solved"?

The quality standards for the MOX - even if they are met - have been agreed between BNFL and its customers without any independent safety checks. According to the International Standards Organization (ISO) plutonium is not a "standard product" like uranium, and therefore agreed international quality assurance standards cannot be set for it. BNFL is taking "corrective action" to keep its management quality assurance standard, ISO9002, awarded by Lloyd's Register Quality Assurance. But even if BNFL starts to properly manage the plant, it will still be deciding for itself how many checks to do and what to measure - with no guarantee that the fuel is safe to use. BNFL's management and technical problems

affect the whole company, not just one plant, and they clearly should not be allowed to set their own safety standards.

Q8. Has the NII asked why BNFL is making MOX at all?

As well as the dangers of use in reactors, MOX fuel also creates many other problems that are worse than using normal uranium fuel. In particular MOX fuel, because it is made from plutonium, is a direct nuclear-weapons useable material. This means that shipping it from Britain to Japan threatens nuclear non-proliferation in East Asia and carries a risk of terrorist attack. Nuclear reprocessing at Sellafield, which produces the separated plutonium, also pollutes the environment and adds to the growing stockpiles of nuclear waste at Sellafield.