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Public engagement - the benefits and challenges of openness and transparency

EUROPEAN NUCLEAR REGULATORS – VITAL LESSONS FROM FUKUSHIMA NOT LEARNED

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Was Fukushima a turning point in the quality of nuclear regulation?

We have a hopeful starting point: ENSREG offers a platform of closer cooperation; ASN pushes through its position of stronger independence and larger transparency and as nuclear regulator of the largest nuclear country in Europe is raising the bar for other regulators; the European Council demands a comprehensive assessment of all nuclear power stations in Europe; Germany removes the taboo on talking about shut-down in case certain risk factors cannot be removed...
NGOs, including the ones I am working for, constructively engage in that dynamic.

Coming September, the IAEA will issue its final report on Fukushima. You will find there a quote from Yukiya Amano, Director General IAEA: *"A major factor that contributed to the accident was the widespread assumption in Japan that its nuclear power plants were so safe that an accident of this magnitude was simply unthinkable. This assumption was accepted by nuclear plant operators and was not challenged by regulators or by the government. As a result, Japan was not sufficiently prepared for a severe nuclear accident in March 2011.*
The Fukushima Daiichi accident exposed certain weaknesses in Japan's regulatory framework."[1]

Let's take a look whether in the four years since Fukushuma this vital lesson has been learned in Europe – by European regulators and authorities.

The European nuclear stress tests

The IAEA concludes: *"The reinforced basic assumption amongst the stakeholders about the robustness of the technical design of nuclear power plants resulted in a situation where safety improvements were not introduced promptly."*[2]
A today presented report commissioned by Greenpeace on the updated National Action Plans of the EU nuclear stress tests[3] reveals that too many time-lines are not kept but prolonged; too often serious problems are covered with more studies rather than necessary upgrades.

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1 IAEA, The Fukushima Daiichi Accident, page i, foreword
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part1.pdf

2 IAEA, The Fukushima Daiichi Accident, page 8 and 76, Assessment of human and organizational factors
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part1.pdf
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part2.pdf

3 Becker, Oda, Patricia Lorenz, *Critical Review of the Updated National Action Plans (NAcP) of the EU Stress Tests on Nuclear Power Plants*, June 2015, Greenpeace e.V; http://www.greenpeace.org/eu-unit/Global/eu-unit/reports-briefings/2015/20150629%20FINAL%20-%20Critical%20Review%20NAPs.pdf

The first black hole: Nuclear security

The IAEA criticised the situation in which several organisations with different roles and responsibilities in complex interrelationships led to lack of clarity on who was responsible for what and could decide what. That also is the situation with nuclear security in Europe.

[*"The regulation of nuclear safety in Japan at the time of the accident was performed by a number of organizations with different roles and responsibilities and complex interrelationships. It was not fully clear which organizations had the responsibility and authority to issue binding instructions on how to respond without delay to safety issues."* [4]]

- The European Council's Ad Hoc Group on Nuclear Security (AHGNS) report was a dud: insufficient, non-committing.
- There was no Europe-wide cooperation between those who know something about security – the many security services, and those who know something about nuclear technology – the regulators. In contrary, ENSREG was kept out of the door of closed AHGNS sessions.
- Former Energy Commissioner Oettinger continued to state that aircraft crash was a part of the stress tests, while everybody knew it wasn't.
- We saw complete security confusion around dozens of drone incidents in France and Belgium end of last year.
- National authorities in Spain clamped down on our activists – the Cofrentes 17 – demanding outrageous jail sentences and toughened penalties instead of going into dialogue with Greenpeace.
- Last August, the Hungarian regulator saw no problems in sending a trainload of spent nuclear fuel through a country that is in a situation of civil war.

Only the German Ethics Commission for a Safe Energy Future seemed to accept that every nuclear power station in principle can be brought to a catastrophic situation with the use of internal or external violence – be it sabotage, terrorism or war. But in large, Europe continued with business as usual. AHGNS has not improved that situation in any meaningful way. Its focus was wrong, its lack of cooperation internally was wrong, its lack of cooperation with regulators was wrong, its lack of transparency and cooperation with civil society was wrong. That is more than disappointing. It is dangerous.

The second black hole: Emergency preparedness and response

The IAEA will stress in September that defence in depth means improving mitigation measures.

"*The defence in depth concept remains valid, but implementation of the concept needs to be strengthened at all levels by adequate independence, redundancy, diversity and protection against internal and external hazards. There is a need to focus not only on accident prevention, but also on improving mitigation measures."*[5]

The ultimate mitigation measure of emergency response failed miserably for many people in Fukushima. And in Europe, the work on it came to a basic halt.[6]

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4 IAEA, The Fukushima Daiichi Accident, page 7 and 72, 2.2.5. Assessment of regulatory effectiveness
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part1.pdf
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part2.pdf

5 IAEA, The Fukushima Daiichi Accident, page 91, 2.9. Observations and lessons
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part2.pdf

6 See among others: Železnik, Nadja, Andrej Klemenc (eds.), Report of NTW Working Group on Emergency Preparedness & Response (EP&R), Brussels (2015) Nuclear Transparency Watch;
http://www.nuclear-transparency-watch.eu/wp-content/uploads/2015/04/NTW-Report.pdf

- We still see Antwerp threatened by ageing power stations without an adequate idea how to evacuate hundreds of thousands of people within a matter of a few days.
- Firefighters in de Panne still have no idea how to react when there is a multi-reactor accident in Gravelines.
- People in Luxembourg have easier access to iodine prophylaxis than their neighbours in Belgium when Cattenom runs into problems.
- Emergency drills in Slovakia are still communicated as sufficient when they only address INES 5 accidents – do we really know how we will deal with an INES 7 accident in Mochovce?
- The Hungarian authorities plainly refuse to address emergency preparedness and response in any sufficient way in the Paks II EIA. The UK ONR seems to condone the misconception that it would be impossible for Hinkley Point C to ever see substantial emissions of radioactive substances.
- Europe still is too scared to address the issue of nuclear liability – no-one can count on sufficient compensation after a severe accident.

The new nuclear transparency watchdog organisation Nuclear Transparency Watch tries to push the discussion forward. But even four years after Fukushima, we have not been able to get national authorities make a full stress test of their emergency preparedness and response provisions for every nuclear power station on the basis of the lessons of Fukushima!

The third black hole: No lessons from Fukushima since 2012 in the National Action Plans

I suppose you follow what happens in Fukushima, don't you? Just a few out of many: What about

- post-emergency radioactive water management;
- building integrity management after natural damage and/or explosions;
- the need for, availability and use of robotic equipment for investigation and measurement work as well as for debri-clearing;
- the need for, availability and use of advanced modelling techniques;
- the availability of a sufficient, skilled and qualified workforce, or are you also relying on your local form of yakuza and homeless people?

Why are such questions not addressed in the National Action Plans? Are regulators really learning organisations?

The fourth black hole: Regulatory independence

The IAEA: It is essential that the regulatory body is independent.

"*In order to ensure effective regulatory oversight of the safety of nuclear installations, it is essential that the regulatory body is independent and possesses legal authority, technical competence and a strong safety culture.*"[7]

This is enshrined in European legislation. But the proof of the pudding is in the eating, not in the recipe.

I do see positive signs: the peer-reviews sharpened minds. Non-nuclear country regulators, Austria, Luxembourg, Greece, Ireland, forced other regulators to justify and sometimes question their positions. The growing independence of the French ASN and IRSN is pushing the bar upwards for others.

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7 IAEA, The Fukushima Daiichi Accident, page 7, Assessment of regulatory effectiveness, and page 83, 2.3 Observations and lessons.
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part1.pdf
http://www.greenpeace.org/japan/Global/japan/pdf/iaea_report%20_Part2.pdf

But we also saw the Hungarian regulator sent the country's number one nuclear promoter, Mr. Aszódi, as its “independent” expert in the peer review teams. Mr. Aszódi is now, by the way, the Hungarian government's sales man of the Paks II nuclear construction project.

Assessing nuclear independence within ENSREG is difficult. *He that is without sin among you, let him first cast a stone* (John 8:7). I understand that.
So transparency appears to be the only tool that can shine light on this issue.
Here some more light:

- The 2012 incredible revolving door case of Jukka Laaksonen of STUK, moving without break to Rosatom. As a reaction, regulators from the Czech Republic, Slovakia, Slovenia, Sweden and Belgium continued to try to convince me that revolving doors are inevitable in smaller countries. Are they really?
- The Swedish and Belgian regulator actively delivered advice to their governments how to circumvent greater and legally prescribed transparency around the issue nuclear plant life-time extension. The Espoo Convention prescribes, as we saw in Ukraine, an environmental impact assessment with public participation for plant lifetime extensions – irrespective of an unlimited operation license, irrespective of substantial physical changes, but simply on the basis of the fact that after 30 or 40 years it is time to stand still and assess whether the world and the surrounding environment have not changed so much that we might come to new insights concerning risk, threat, safety. SSM and FANC stand nothing to loose from an adequate level of transparency and public participation – only to win. The only one who wins is the operator in the form of less costs and less to discuss.
- The stress tests surfaced the problem of the re-active regulator. The regulator that has not sufficient human capacity in the form of skilled staff, not sufficient budget, not sufficient support from independent technical support organisations to be able to actively look for weaknesses, actively suggest improvements or actively demand shut-down. Is it really sufficient, when only ASN can boast such a pro-active position in Europe? Is it really acceptable to wipe that aside with a reference to “different cultures”?

Transparency and public engagement only work, when authorities are open to it. It is not sufficient if that only shows in France with its increased independence of ASN, its local information committees. And we still have serious concerns about France. ASN is under extreme pressure to cave in. Will it only look at the results of safety upgrades on this moment, and not to the fact that 20 years life-time extension to recoup investments will mean de-facto a net risk increase of risk? The EBRD and Euratom make that mistake in Ukraine. Will ASN stick to its advice to use the Hinkley Point C vessel head for destructive analysis? FANC is still doubting to demand the same from ENGIE / Electrabel in the case of hydrogen flakes; the Czech SÚJB states that original welding documentation is not necessary in case of an alleged faulty weld in the primary circuit. Will ASN survive the pressure? We will keep watch.

But the rest of Europe's regulators are lagging miles and miles behind ASN even.

Conclusions

1. We need a more ambitious and thorough implementation of the stress tests. If the operator wants to do more studies? Good – but shut your reactor down as long as uncertainties remain. Does the operator need more time to install filtered vents? OK – shut down the reactors until that has happened.
2. Close the first black hole: We need a more serious, coordinated and open, yes open, assessment of security issues, and nuclear regulators should have an active role in pursuing

that and not hide behind lack of mandate.

3. Close the second black hole: We need a fundamental stress test of emergency preparedness and response for INES 7 accidents, and regulators should have an active role in pursuing that and not hide behind lack of mandate.
4. Close the third black hole: We need ENSREG and all regulators to assess the Fukushima lessons from after 2012.
5. Close the fourth black hole: Clean up our nuclear regulatory system of all remaining dependency from licensees and nuclear promoting structures. No more articles in nuclear promotion material. No more revolving doors. No nuclear gurus as advisers. We need open discussions with everybody with sensible input – also when they are critical about nuclear power. Get independent information committees, locally and nationally. Don't share the room only with pro-nuclear mayors. Becoming pro-active instead of re-active. Don't be scared to be clear about consequences of non-compliance. Never again “we have to remain friendly otherwise we do not get sufficient information”.

The Energy Union, the European Council and the European Commission call for Europe to have the highest level of nuclear safety in the world. If we take that seriously, we need nothing less than a sincere round of self-critical analysis within the world of ENSREG. We as Greenpeace and wider civil society are willing to help with that. Will you be too scared to invite us? I hope not.

Thank you for your attention.