



Nuclear Free Local Authorities Steering Committee

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NFLA Media release - for immediate release, 17th May 2012

NFLA to raise concerns with ONR over worrying results from UK nuclear stress test reports

The Nuclear Free Local Authorities (NFLA) welcomes the publication of the Office for Nuclear Regulation (ONR) report of stress tests on UK non power generating facilities and notes the particular concerns raised in reference to the Sellafield site. This follows publication of an earlier report on stress tests for UK nuclear reactors which also raised important safety and emergency planning concerns, particularly around EDF sites, such as Sizewell B.

The ONR report (1) argues that no serious safety weaknesses have emerged, but makes 75 recommendations for improvement of safety arrangements at UK non power generating facilities such as those at the Sellafield site, AWE Aldermaston, Dounreay Site Restoration Ltd and Springfields Fuel Ltd in Lancashire. A third of these recommendations alone relate to the Sellafield facility (2).

Whilst welcoming the post-Fukushima stress tests for UK nuclear reactors and this new report for non-power generating facilities, the NFLA remains concerned of the potentially disturbing detail behind the general reassurance of the ONR. NFLA plans to raise such concerns at the upcoming meeting of the ONR NGO dialogue. The NFLA also raised such concerns at a European Commission meeting on the stress tests (3) for non governmental groups (NGOs) where inconsistencies in the reporting of stress tests was widely noted and criticised by the European NGO community.

Taking these reports together, and the European Commission's (EC) assessment (4) of them, a number of noteworthy concerns that arise from them include:

- The EC report noted that Sizewell B has no specific design provisions for the mitigation of hydrogen generated in severe accident conditions.
- The EC report also noted that Sizewell B has no design or operational provisions in the fuel building for the management of hydrogen generated by zirconium oxidation by overheating fuel in the fuel storage pond.
- EDF concluded that it was not in a position to carry out meaningful margin assessment for seismic, flood or extreme weather conditions in the timescales of the stress test assessment for all its sites, including Sizewell and Hinkley Point. Though ONR considers the design basis requirements to be robust, it does believe more robust, systematic research is required for 'beyond design basis' events.
- The EC review team identified that most nuclear site Emergency Control Centres do not have proper ventilation systems to cope with severe accident conditions or are not sufficiently protected against radiation in case of a severe accident. None of the Advanced Gas Reactors (AGRs) and Magnox reactors have a fully functioning Backup Control Room (ECR) - allowing control and shutdown to safe condition of the plant if the Main Control Room becomes uninhabitable.
- Why have the French stress tests on EDF sites recommended safety system improvements costing 40 – 50 billion euros, but the UK stress tests mention no such figure?

The NFLA is also concerned that such a large number of recommendations are required by the ONR for the Sellafield site in particular. One recommendation is in reference to ONR concern over fire incidents at Sellafield. Just last week (5), due to perceived failings in an exercise of Sellafield's Fire and Rescue Service, the ONR has issued an improvement notice on the Sellafield site operators because "staffing levels, training and competency requirements fell short of relevant industry good

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practice". The NFLA believes the current national emergency planning review of the nuclear industry needs to take these matters very seriously and rectify them urgently.

An NFLA spokesperson said:

"The NFLA is concerned with some of the detail that has come out of the stress test reports of nuclear facilities in the UK which may point to significant gaps in certain nuclear emergency planning arrangements. With huge cuts across emergency frontline services the NFLA is worried if a Fukushima style disaster could be effectively dealt with. NFLA urges the regulators and the Government to prioritise improving the national nuclear emergency planning regime and rectifying the issues raised from the stress test reports. At the European level NFLA also urges the Commission to follow up these reports to ensure a more robust safety culture is developed across the European nuclear sector."

Ends

Further information –

Sean Morris, NFLA Secretary - 00 44 (0)161 234 3244 or 00 44 (0)7771 930186.

Notes to editors:

- (1) Office for Nuclear Regulation, final assessment report of 'stress tests' for UK non-power generating facilities, 15th May 2012
<http://www.hse.gov.uk/nuclear/fukushima/ngpf-report.pdf>
- (2) The full list of recommendations for the Sellafield site can be found below as Appendix 1 of this media release.
- (3) A European Commission meeting for the NGO community on the nuclear facility stress tests was held in Brussels on May 8th 2012. Former NFLA All Ireland Forum Chair Ollan Herr represented the NFLA at the meeting.
- (4) European Commission analysis of national nuclear stress test reports – United Kingdom, 27th April 2012.
<http://www.ensreg.eu/sites/default/files/Country%20Report%20UK%20Final.pdf>
- (5) Whitehaven News, 'Inspectors criticise Sellafield Fire Service', 10th May 2012.
<http://www.whitehavennews.co.uk/news/inspectors-criticise-sellafield-fire-service-1.952073?referrerPath=home/2.2837>

Appendix 1 – Main recommendations from the ONR stress tests on the Sellafield facility

<http://www.hse.gov.uk/nuclear/fukushima/ngpf-report.pdf>

STF–20 Sellafield Ltd should provide ONR with the decision–making process to be applied to their *Considerations* along with a report which describes the sentencing of all their *Considerations*. The report will need to demonstrate to ONR that the conclusions reached are appropriate.

STF–21 Sellafield Ltd should consider further and provide more details on how emergency arrangements to deal with a site–wide extreme event would anticipate and adapt to challenging criticality events.

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STF-22 Sellafield Ltd should establish if there is anything reasonably practicable that can be done to provide / strengthen the provision of basic plant information (e.g. inventory level and temperature) during / following an extreme event on-site affecting high-hazard / high risk facilities.

STF-23 Sellafield Ltd should take note of NNP finding STF-2 [Ref. 10] and participate in the review as necessary where the seismicity of the area affecting the site is under consideration.

STF-24 Sellafield Ltd should review the information used to inform the seismic damage assessment conclusions in light of more recent experience and detailed analysis completed for periodic safety assessments to confirm expected withstand capacity for facilities with significant inventories.

STF-25 Sellafield Ltd should complete further work to assess the extent of seismic damage to local infrastructure. This work should demonstrate the extent to which local services can function following connection of temporary power supply.

STF-33 Sellafield Ltd should consider the range of beyond design basis earthquakes that could challenge containment to demonstrate the extent of robustness of facilities. The review can be based on reasoned engineering judgement and demonstration of ductile response rather than repeated analysis.

STF-37 Sellafield Ltd should complete further work to identify potential failure mechanisms following beyond design basis seismic events, including the possibility for sudden collapse and cliff-edge failure of safety function.

STF-38 Sellafield Ltd should, in light of advances in river modelling methodologies, climate change information and the known erosion of the river bed, reassess the flow capacity of the channel of the River Calder to better inform the assessment of risk of flood.

STF-50 Sellafield Ltd should complete a review of the possible impact of extreme weather conditions on service networks and temporary service connection points to ensure security of supply and confirm functionality of connection points.

STF-51 Sellafield Ltd should undertake regular load forecasting in order to identify likely shortfalls in the provisions for normal and back-up electrical supply in good time to plan and deliver effective remedial actions and hence avoid material shortfalls occurring.

STF-52 Sellafield Ltd should ensure that the learning from its resilience review regarding vital site loads is embedded into future periodic reviews of site electrical requirements and taken into consideration in the management of change process whenever site electrical loads are to be modified.

STF-53 Sellafield Ltd should complete its review of resilience, including the need for suitable event-qualified mobile diesel alternator connection points, and should undertake improvements where these would facilitate the reconnection of supplies to identified essential equipment.

STF-54 Sellafield Ltd should continue to identify and address potential vulnerabilities in the provision of electrical supplies to systems that may not have an explicit nuclear safety claim in facility safety cases but whose loss could severely hinder site emergency arrangement following a severe event.

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STF-59 Sellafield Ltd should explore the practicality and requirements of pumping water from the sea and other water sources such as local rivers to where it might be utilised, and establish if this could indeed be done in extremis with the systems currently available on-site.

STF-64 Sellafield Ltd should review the severe accident guidelines taking into account improvements to the understanding of severe accident progression, phenomena and the equipment available to mitigate severe accidents (in line with STF-16).

STF-65 Sellafield Ltd should develop and rehearse emergency exercise scenarios covering beyond design basis events and severe accident conditions.

STF-66 Sellafield Ltd should extend its review of the resilience of the back-up supplies in support of the site data network and assess the resilience of the site communication system to design basis natural events and severe accidents.

STF-67 Sellafield Ltd should extend its review of availability of external resource and review its in-plant communication systems used by site fire and rescue teams (e.g. radios) to ensure there is compatibility with equipment used by external emergency services, especially at identified radio shielded areas.

STF-68 Sellafield Ltd should extend its programme for development of severe accident management strategies to its strategic non-nuclear support facilities to ensure adequate information and support can be provided to the Sellafield emergency control centre in the event of a severe accident.

STF-69 Given the extent of the Sellafield site and the need for countermeasures on the site in the event of an accident, Sellafield Ltd should employ all reasonably practicable means to ensure weather forecast information can be made available to its emergency control centre / strategic management centre so that timely advice can be provided on-site.

STF-72 Sellafield Ltd should develop a strategy for incorporating all reasonably practicable measures identified as part of its resilience evaluation process in its programme for enhancing its emergency response capability.

STF-86 Sellafield Ltd should undertake safety margin analysis in order to determine relative withstand of containment structures to a beyond design basis overpressure

STF-87 Sellafield Ltd should consider, in more detail, the consequences of fire coincident with criticality and the capability of Sellafield site to respond to these events.

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