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**HYBRID MEETING OF THE ONR EXPERT PANEL ON NATURAL HAZARDS, SUB-PANEL ON METEOROLOGICAL AND FLOODING HAZARDS**

**Wednesday 15 November 2023- 08:30-16:30**

Windsor House, 50 Victoria St, London SW1H 0TL / Microsoft Teams

**Agenda**

**Attendees**

Professional Lead Civil Engineering and External Hazards Nuclear Safety Inspector

Nuclear Safety Inspector Principal Safety Inspector Nuclear Safety Inspector Nuclear Safety Inspector Nuclear Associate Nuclear Safety Inspector

NR Expert Panel ONR Expert Panel ONR Expert Panel ONR Expert Panel

In person In person In person Teams

In person

In person In person In person In person In person In person Teams

**Time Item No Item Name Lead**

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08:30 0 Gathering

09:00 1 Welcome and introductions

09:10 2 ONR update

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09:45 3 Indicators of future extreme weather events 10:15 4 Break

10:30 5 Highlights of the Exeter UK Climate Change Risk Assessment 4 meeting

11:00 6 Latest scientific evidence on rates of sea level rise ■

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11:30 7 European Climate Change Risk Assessment 12:00 8 Lunch

13:00 9 EP views on changes to Annex 2 EPP

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14:00 10 Discussion on Annex 2 EPP ■

14:30 11 Break

14:45 12 EP views on changes to Annex 3 EPP 15:45 13 Discussion on Annex 3 EPP

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16:15 14 Actions and Any Other Business

16:30 15 Thanks and Close

## ONR Update

ONR opened the meeting and provided an update on regulatory matters relevant to the Meteorological and Coastal Flood Hazards Sub-Panel.

The CNI Themed Inspection on Climate Change was discussed. All dutyholder responses to the self-assessment questionnaires were received by ONR by end October 2023. ONR will evaluate the self-assessments at an internal moderation workshop in December 2023. This will ensure a consistent approach to the review of questionnaires, identify sites for inspection and

to agree next steps. The Expert Panel’s contribution to the CNI Themed Inspection activities was discussed.

ONR published Revision 9 of NS-TAST-GD-013 including updates to Annex 2 and 3. Annex 5 is due to be issued November 2023. Annexes 1 and 4 will be updated following completion of ongoing work.

# Indicators of future extreme weather events

The Expert Panel presented on recent events as indicators for future weather extremes. The meeting discussed a paper by Armstrong et al. (2022): “Exceeding 1.5°C global warming could trigger multiple climate tipping points.” It assesses the impacts of climate change, ability to predict possible future events, and recent examples of extreme events worldwide.

# Highlights of the Exeter UK Climate Change Risk Assessment (CCRA) 4 Meeting

The Expert Panel presented a summary of the CCRA 4 Meeting that took place in Exeter in September 2023. The meeting included topics such as:

* climate adaptation policy planning;
* climatology of compound events involving high air temperature and flooding; and
* assessments of post-2200 sea levels.

# Latest scientific evidence on rates of sea-level rise and causes.

The Expert Panel presented on scientific evidence surrounding rates of sea-level rise and causes. The focus was on key topics including observed phenomena, rate of sea-level rise and sources contributing to sea-level rise.

# European Climate Change Risk Assessment

The Expert Panel presented on the European Climate Change Risk Assessment (EUCRA). Key topics included societal preparedness by expanding understanding of climate change, adaptation deficit, and potential future-proofing of climate projections.

# Expert Panel views on changes to the Expert Panel Papers supporting Annexes 2 and 3

The Expert Panel presented their views on possible changes to the Expert Panel Papers, GEN-MCFH-EP-2021-1 and GEN-MCFH-EP-2021-2, which support NS-TAST-GD-013

Annexes 2 and 3 respectively. The Expert Panel identified:

* Areas for maintenance to reflect new scientific papers and information including new observational data sets and climate modelling (e.g., Intergovernmental Panel on Climate Change Sixth Assessment).
* Areas for possible expansion or inclusion of additional information including compound events, use of a storylines approach, and coastal erosion.
* Possible changes to emphasis, which includes incorporating diagrams and illustrations of hazards to demonstrate importance, and comparisons to what is considered international best practice.

The Expert Panel noted overlap in the scope of the papers and some duplication of information. This results from the inter-connections between earth systems processes. The advantages and disadvantages of combining the two Expert Panel Papers or keeping them as

separate documents were discussed. The Expert Panel agreed to reflect on the discussion, and a meeting is to be organised in early 2024 to discuss the Expert Panel’s preferred approach.

# Closing Remarks

ONR thanked the participants and closed the meeting.