Science Advisory Group (SAG) for the review of potential environmental contamination in Grenfell and North Kensington

Advice to Grenfell Tower Fire Ministerial Recovery Group

Minutes of Meeting #3 - 4 March 2019

Overview

At its third meeting, SAG considered the priority questions for the sampling programme which comprises part of the soil investigation; plume modelling data; bioavailability of contaminants in soil; research questions around public health; biomonitoring; and the relevance of the World Trade Centre tragedy to the Grenfell tower tragedy.

Conclusions and recommendations

1. SAG undertook a review of the key questions it is attempting to address. *See key questions below*.

2. Having reviewed Met Office deposition modelling, SAG's position remains that modelling alone cannot confirm what kind of deposition took place in the area directly around the tower. SAG advises that sampling is needed in this area and that local residents' input could help define key areas for sampling.

3. SAG recommends that the following questions should be addressed in the soil investigation:
    - historical concentrations of contaminants, derived as far as possible from historical data;
    - present concentrations from a carefully considered sampling strategy, taking plume modelling into account and looking for 'hotspots' using, where possible, chemical 'fingerprinting' able to pinpoint whether any contaminants detected can be attributed to the fire;
    - a risk assessment based on concentrations and assessed bioavailability (i.e. how contaminants would enter the body), of present measurable concentration, based on existing, suitable standards, and

    SAG also recommends that the methods and findings of this investigation be discussed with the community and their feedback would be taken account of.

4. There is no reason that SAG know of, from a technical or competency perspective, to suggest AECOM should not be appointed to carry out Phase 1 of the soil risk assessment.

5. SAG supports the appointment of a National Quality Mark Scheme (NQMS) assessor (a "suitably qualified person" or SQP) to independently oversee the work of the contractor AECOM.

6. SAG advises that there is a difference between the concentrations of contaminants in soil and the level of risk to individuals from these contaminants. Risk to the public is linked to their exposure to the contaminants and also, the bioavailability of contaminants. Good communication with the community requires translating any findings of soil contamination into good advice for individuals, taking into account, issues such as age, pre-existing conditions and levels of exposure.

7. SAG advises that sampling will give information on soil concentrations of contaminants, but it will not provide data on whether there have been any health effects in the community as a result of any contamination. To understand whether they have been health effects would require a systematic research study to assess the health of all community members, measured against a suitable comparison group. If a scientifically rigorous funding proposal

for research of this kind were made to UK Research and Innovation/National Institute for Health Research, SAG would be supportive. Children should ideally be considered as part of any such study.

8. SAG understands that biomonitoring (measurement of chemical compounds in the body) for fire effluents would be possible currently only for furans, dioxins and PCBs, but that no current clinical action could be taken in response to these results for the benefit of individuals because not enough is known about the long term effects of these chemicals in the body. The other effluents of interest are short-lived in the body, so any tests carried out now would not provide information relevant to the fire. SAG considers that biomonitoring studies would be best suited to a research project.

9. SAG agreed that enhanced NHS healthcare response in the Grenfell area is proportionate, and that, where individuals present to their GPs, the plans for thorough follow-through and referral look appropriate.

10. A paper from SAG secretariat summarising a variety of independent studies and official reports on the World Trade Centre (WTC) Health Programme was shared with SAG for review and discussed. SAG was advised by a senior US researcher involved in the WTC response that significant differences lie in the nature of the contamination and the exposure duration between the WTC tragedy and the Grenfell fire. The WTC scenario consisted of long-term exposure over several months to alkaline dust and asbestos.

Actions

ACTION 3.1 – SAG secretariat to organise meaningful engagement with the community, before the next SAG meeting.
ACTION 3.2 – Dr Freeman to formulate a proposal as to how the quantitative data should be presented publicly before the data becomes available.
ACTION 3.3 – SAG reiterated its desire to comment on contractors' proposal for community engagement (including how it plans to understand the nature of the community's concerns re potential contamination).
ACTION 3.4 – MHCLG and AECOM to provide more detail on the appointed team for SAG to review and comment.
ACTION 3.5 Prof Newman Taylor to review PHE's strategy for asbestos on behalf of the SAG and report back at the next meeting.
ACTION 3.6.1 – SAG to identify potential research questions to share with UKRI.
All members to submit environmental-related research questions to SAG secretariat before the next meeting.
ACTION 3.6.2 – Prof Whitty, with input from other SAG members, to compile a list of health-related research questions and consider how to achieve join-up between the research interests of UKRI and the National Institute of Health Research (NIHR) before the next SAG meeting.
ACTION 3.6.3 – SAG to review research questions at each meeting, covering both health and environmental issues.
ACTION 3.7 – SAG secretariat to ask Met Office about the confidence levels for plume modelling of heavier deposition at radii between 300m and 1000m from the tower.
ACTION 3.8 – SAG secretariat to update key questions for SAG following discussion at the meeting. Once revised, Dr Nathanail to advise on how questions should be shared with the contractor consistent with Part 2A legislation by the end of March, and any additional questions that fall outside of Part 2A should be identified.
ACTION 3.9 – Prof Stec to provide guidance on potential effluents from building cladding (and to fulfil outstanding prior actions) before the next SAG meeting.

Key questions

<u>Science and health questions</u>

1. What are the key scientific and health questions – and are we agreed on these?
    a. *What are the historic concentrations of contaminants in the area?*
    b. *What are the concentrations since the fire?*
    c. *What is the absolute risk to public health, dependent on bioavailability?*
    d. *What is known about potential effluents from the fire? Do any of these have distinctive markers to distinguish them from historic contaminants?*
    e. *Are potential exposure pathways fully understood (biological, behavioural)?*
    f. *Is there a risk beyond the Grenfell community (i.e. in neighbouring boroughs)?*
    g. *What health programmes are in place, and are they sufficient in scope?*
    h. *Do any other issues require scientific investigation or research, now or in future?*

<u>Soil risk assessment questions</u>
2. Is the proposed soil risk assessment plan scientifically rigorous and does it address the key scientific and health questions?
3. Does the contractor have appropriate technical capability to deliver the soil risk assessment and associated community engagement?
4. Are the timelines reasonable given what we know today about potential risk?
5. Is the scope of the soil assessment plan appropriate and are there other tests that should be done? If so, why, and what would be done as a result of any other tests proposed?

<u>Public communications questions</u>
6. Is there a clear and transparent community engagement plan which maximises the likelihood of findings being fully understood, useful and accepted?
7. Is there a clear plan for communication of raw data and results? How they should be contextualised?

In attendance
Sir Patrick Vallance, chair
Prof Sir Anthony Newman Taylor
Prof Sir Munir Pirmohamed
Dr James Rubin
Prof John Warner
Prof Chris Whitty (in his capacity as Deputy Chief Medical Officer)

Remote
Dr Alexandra Freeman
Prof Robert Mokaya
Dr Paul Nathanail

Apologies
Dr Lindsay Bramwell
Prof Len Levy
Prof Ragnar Löfstedt
Prof Anna Stec

Others
Government Office for Science secretariat