

Chronic Human Health Risk Assessment in Scotland

This is a *personal* view ... by
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Regulatory Balances

Bringing damaged land
back into beneficial use

Allowing inappropriate
development to proceed



PAN33

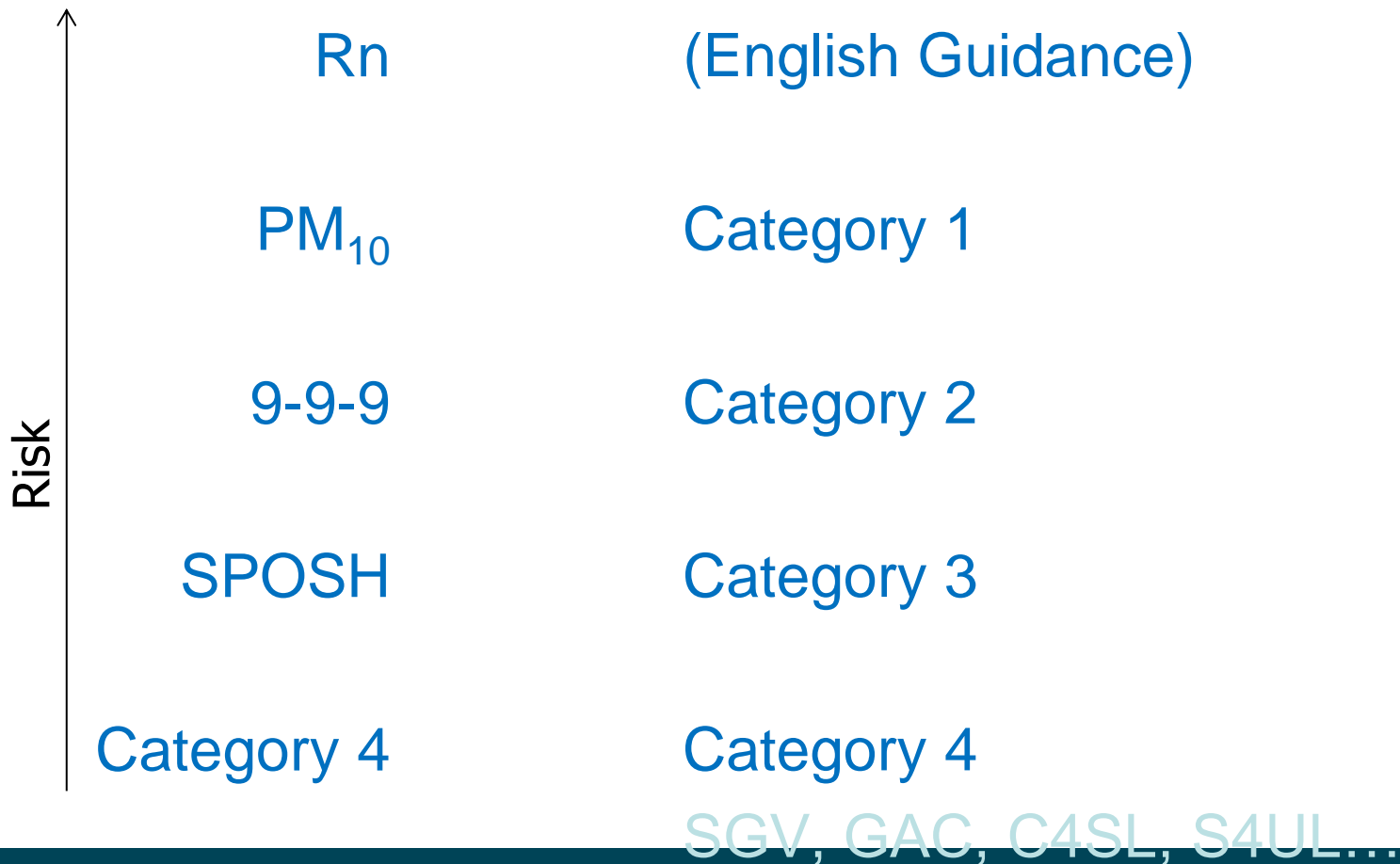
Protecting public health
and the water environment

Causing anxiety through
unnecessary remedial works



Part IIA

Risk Comparisons



Soil Guideline Values

- Only eleven substances
- Effectively superseded by LQM/CIEH criteria



Department
for Environment
Food & Rural Affairs

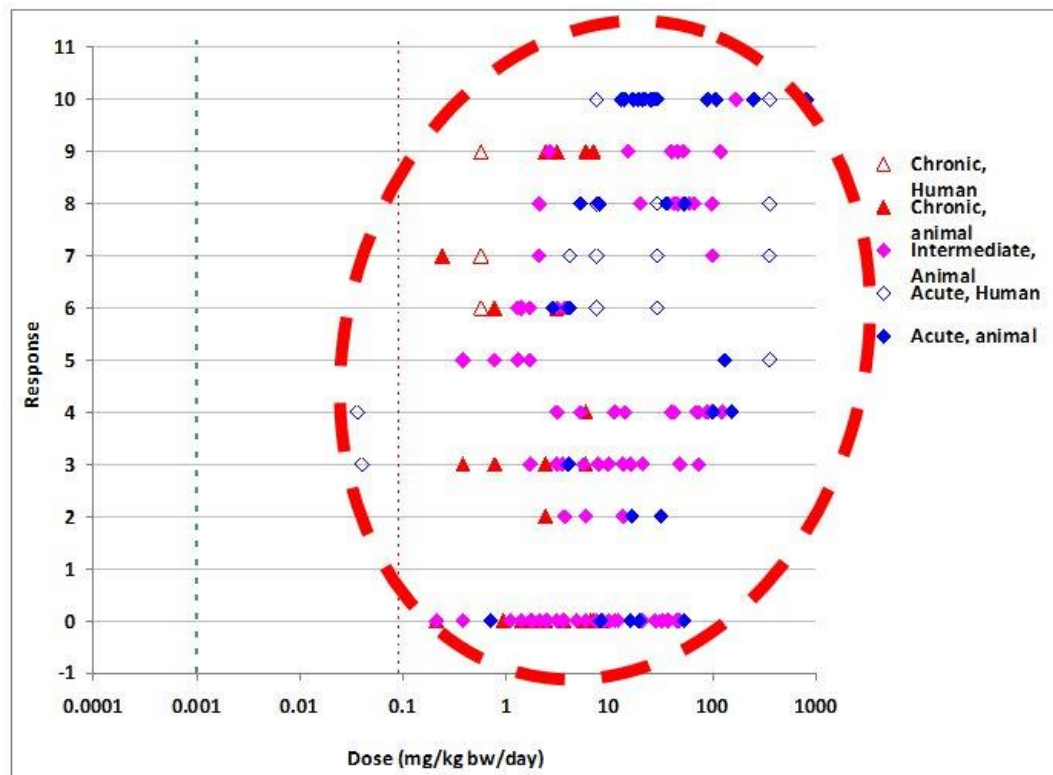
Generic Assessment Criteria

- LQM/CIEH GAC (81 substances)
- LQM/CIEH S4UL (89 substances)
- Other consultancies, notably Atkins, have produced their own criteria



LQM Dose-Response Roadmaps

- Graphical Results – good for risk communication



LQM
LQM

Category 4 Screening Levels

- C4SL values do not define the boundary between Cat.4 (not contaminated) and Cat.3 (might be); they are ‘somewhere’ below even that line
- How ‘thick’ is Category 3? Is there as much as an order-of-magnitude difference for some contaminants? I think so
- How many layers of conservatism do we need to cover off uncertainties in exposure, response &c.
- Lord De Mauley’s clarification (E&W) encourages their use in planning (see over...)

1. *“the screening values were developed expressly with the planning regime in mind*
 2. *“their use is recommended in DCLG’s planning guidance*
 3. *“soil concentrations below a C4SL limit are considered to be ‘definitely not contaminated’ under Part IIA of the 1990 Environmental Protection Act and pose at most a ‘low level of toxicological concern’*
 4. *“exceedance of a C4SL screening value does not mean that land is definitely contaminated, just that further investigation may be warranted”.*
- They are applicable in Scotland if you can justify the assumptions that were made in their creation
 - In the absence of other guidance, they are a useful ‘line of evidence’



Benchmark Dose



- Health Protection Scotland commissioned Institute of Occupational Medicine to investigate methods of risk assessment; recommended benchmark dose method
- Scottish Government commissioned Institute of Occupational Medicine to develop a range of criteria based on the recommended benchmark dose method
- The report has been submitted but it is not clear who is going to peer review it
- A presentation was given at the 'Brownfield Briefing' conference in Glasgow last week

- IOM “expected to deliver a set of values much higher than existing reference values, but it didn’t work out like that”
- It was emphasised the project was about method and not toxicology
- You can monetarise risk (e.g. C.B.A.) but only at a national level; no-one at last week’s conference was representing the Scottish Government
- It was suggested that the local authorities are going to have to reach a consensus. It was argued that’s never going to happen. I’m with the latter school!

DQRA

- DQRA is the only sensible tool for determination of sites. Risk is assessed by considering the current situation and practices on site
- But the present owners—or future owners—could lift those slabs and start growing vegetables without planning permission
- Managed sites: having reached the point of decision, advising the owner to avoid growing vegetables (for example) and to keep the advice with their deeds
- Even on council owned land, who consults that advice?

Lines of Evidence approach

- As a community, us regulators cannot agree on a single approach (witness online forum discussions!)
- The Scottish Government research project is unlikely to provide any authoritative answers in the short term
- We really have to use three or four lines of evidence