

'Politicization' and 'Scientization' in Human Health Risk Assessment

Judicial Symposium on Scientific Evidence in the Courts
George Mason University School of Law
Law and Economics Center
April 24, 2012

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My Working Definitions

① Politicization of science

- The intentional (a) inclusion of substantive or presentational scientific error or (b) exclusion of information crucial for providing context

① Scientization of policy

- The intentional (a) misuse or abuse of science to make or justify policy decisions or (b) conversion of a policy dispute into 'science'

The Role of Intent

- ① Prima facie evidence of intent
 - When agency risk assessment guidance permits or requires the politicization of science or the scientization of policy
 - When presented with evidence of scientific error, the agency refuses or declines to make corrections

Politicization and Scientization in Health Risk Assessment: the 'Reference Dose'

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- ① 'Likely' does not mean > 50% chance, means whatever the EPA says it means
- ① Doses greater than RfD are mischaracterized as risky

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Scientization

- ① 'Sensitive subgroups' chosen based on policy/political considerations
- ① 'Appreciable' risks are defined ad hoc by EPA staff
- ① 'Deleterious effects' are defined ad hoc by EPA staff

Politicization and Scientization in Determining the ‘Safe’ Dose of Perchlorate

Proposed Reference Dose	Drinking Water Equivalent Level (ppb)	Implied Margin of Safety
NRC 2005 <u>science</u> (range)	1,400 14,000	1 10
NRC 2005 <u>science</u> ‘rounded off’	245	57
Greer et al. 2002 (‘no effect level’)	182	77
EPA 2004 ‘provisional’	70	200
EPA 1998 2 nd draft risk assessment	32	438
NRC 2005 <u>policy recommendation</u> (divide ‘rounded off science’ by 10)	25	571
State of California 2005	6	2,333
EPA 2002 3 rd draft risk assessment	1	14,000
Environment California 2005	0.4	35,000

Questions or Comments?

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