

A Case for the Commonplace: Locating Nanotechnology within Existing Regulatory Frameworks

Jeff Morris, PhD, US Environmental Protection Agency

Nanotechnology is justifiably recognized as an important breakthrough technology. The emergence of nanomaterials into the chemicals regulatory space has brought fresh perspectives, new analyses, and different voices into discourse around the location of technology in society. By engaging in discussion of the ethical, legal, and societal implications of nanotechnology in real time as nanomaterials move from the laboratory into commerce, regulators nationally and globally have found themselves confronted with a broader and deeper set of governance considerations than they faced in previous decades with traditional industrial chemicals regulation. As a result, nanotechnology has played a disruptive role in thinking around chemicals regulation.

That said, there also is much about nanotechnology that is not new for chemical regulators. For instance, the OECD framework of human health and ecological test guidelines that is central to global chemicals regulation is recognized by regulators as applicable to nanomaterials. As a result, the vocabulary used by regulators to characterize chemical safety—toxicological endpoints, exposure factors, worker protection measures, and the like—is understandable when applied to nanotechnology in the chemical space. Regulatory discourse has been broadened by nanotechnology by ELSI considerations, but the language remains the same, and its usage is familiar to regulators.

Because they were able to interrogate nanotechnology with familiar language supported by a stable regulatory infrastructure, regulators also were able to open their discourse to considerations, including ELSI, that typically are not prominent in dialogue among chemical regulators. This presentation will describe how this element of the commonplace is fortunate for present and future regulatory discourse around nanotechnology in particular, and generally for emerging technologies. It also will point to research questions that social scientists can address to further elaborate how existing regulatory frameworks accommodate the entrance of new technologies.