

Are Particle Size- related OEL's Really Necessary or Practical?

Shaun F. Clancy, Ph.D.

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EVONIK
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If the answer is “No”....



Go have a late breakfast

Or perhaps an early lunch

Then go to museums

The Air & Space Museum is great!

So is the Spy Museum!

If the answer is “Yes” (or “Sometimes”)...



We have work to do!

And news to deliver:

- Why
- What
- How
- Who
- Where
- When

The News is...



We need to be clear about Why there is a need for a size related exposure limit

We need to clear about What is the thing for which the exposure limit is needed

We need to be clear about How it is the exposure limit will be measured

We need to relate this information to the “real world”

Who is the target for the conclusions to this Workshop and what is it that they need to know?

The Who that ensure the OEL is generated is whoever concludes that an special OEL is needed. This doesn't necessarily mean a manufacturer and could be a user or regulator, too.

The Where is the workplace as we're discussing Occupational exposures.

The When is ASAP after the need is established. It is my understanding that OEL's can be difficult to set so once it is decided that one is needed it can take quite awhile to come up with a number.

Why is there a need?



Do materials of different particle sizes have different types of safety concerns?

How different is “different”?

What are the concerns?

Inhalation? Dermal? Irritation? Toxicity?

Are the concerns the same for all nanomaterials?

What are the materials for which OEL's are needed?



What is a “nanomaterial”?

Are aggregates included?

Are agglomerates included?

Do primary particles really exist?

How will target nanomaterials be characterized?

What media will be used and how will it affect the selected nanomaterial?

How will the limit be measured?



OEL's need to be measured in occupational settings.

For each nanomaterial is there equipment available to measure exposure concentrations?

Can exposures to engineered nanomaterials be distinguished from background?

Is needed equipment affordable? Practical? Rapid?

Do the materials for which nano OEL's are to be set actually exist?



Materials generated for toxicology tests are sometimes created to answer a specific question but does the material tested represent something other than a laboratory curiosity?

If so, can the lab generated material be correlated to a “real world” material?

What about “legacy” materials?

The Target Audience



OEL's are of great interest to people and organizations with varying levels of experience and resources. It is important to make the output of this workshop easily understandable.

Who are the target audiences?

What do they know?

What do they think they know?

If we answer these questions...



It will be clear whether and when OEL's for nanomaterials are needed

It will be clear that it is possible to practically and economically determine nano OEL's allowing exposures to be controlled

There will be more support for particle size-related OEL's