

Report on the Source Term Working Group

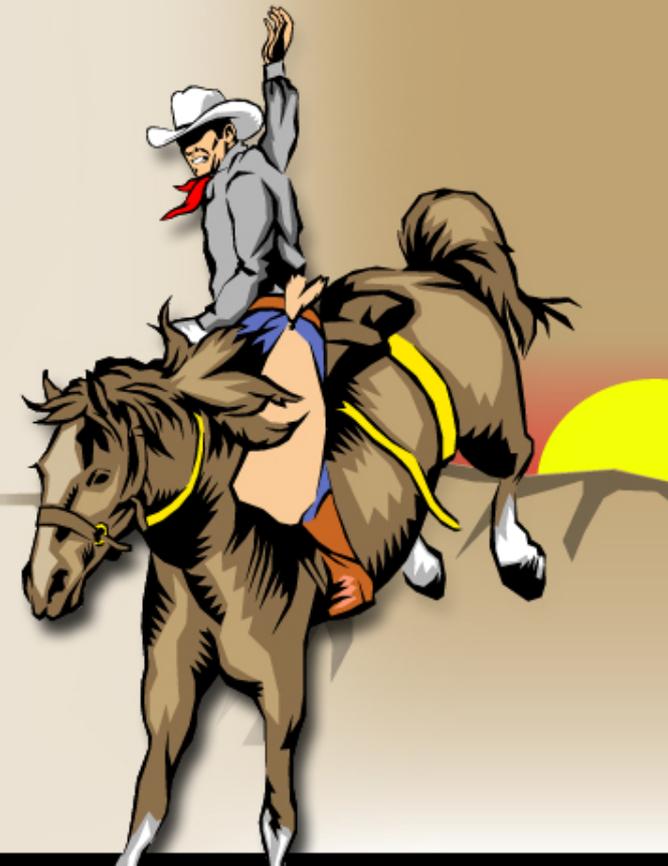
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Met on Wednesday Afternoon

- Carl Mazzola, Wayne Davis, Denny Armstrong, Michelle Wolfgram, Amber Martin, Dave Freshwater, Jim Jamison, Greg Martin, Rocky Petrocchi, & Cliff Glantz
- Fred Harper (High Consequences Assessment & Technology Department at Sandia National Laboratories) was our distinguished guest
- Spent about 75 minutes learning about Fred's activities and asking questions... it was very interesting and informative!

Source Term Working Group

- We have draft webpages... and a draft charter

Untitled Document - Microsoft Internet Explorer

Address <http://orise.ora.gov/emi/scapa/source-term-info.htm> Go File Edit View Favorites Tools Help

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SCAPA Home

- Chem PACs / TEELs
- Chem Mixture Meth. & Health Code Numbers
- Modeling Toolbox
- Software QA
- Biosafety

About the EMI SIG

Products & Training

Events & Highlights

Membership

Subcommittees

Exercise and Drill

Hazards Assessment

Emergency Public Information

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News from DOE/NA-41 :: FAQs on DOE C

Draft Source Term Information

Radiological Source Term Information

- A key reference on radiological source terms is *DOE Handbook -- Airborne Release Fractions/Rates and Respirable Fractions for Nonreactor Nuclear Facilities (DOE-HDBK-3010-94)*. The handbook is available online at: <http://www.hss.energy.gov/NuclearSafety/techstds/standard/hdbk3010/h3010v1.pdf>

The handbook provides a compendium and analysis of experimental data from which airborne release fractions (ARFs) and respirable fractions (RFs) may be derived. These values are used to estimate quantities of radioactive material that may become airborne in a release event. This information is used to estimate the scope of the potential release spectrum and potential downwind consequences from a given facility or activity. The information provided in this handbook aids in making such estimates. The data in the handbook can be used in a variety of applications, such as safety and environmental analyses, and to provide information relevant to system and experiment design. The handbook cautions that the data and analyses it provides need to be critically evaluated for applicability in each situation in which they are used.

- In May 2006, the Chairman (A.J. Eggenberger) of the Defense Nuclear Facility Safety Board, reported (see http://www.dnfsb.gov/pub_docs/dnfsb/cor_20060501_multi.pdf) that the methodology derived from DOE-HDBK-3010 "contrasts with the technical simplicity and regulatory precedence" of the more conservative methodology used to calculate the "A2 values specified in 49 CFR 173.435, *Shippers—General Requirements for Shipments and Packagings*" (see http://a257.g.akamai.net/7/257/2422/12feb20041500/edocket.access.gpo.gov/cfr_2004/actntr/pdf/49cfr173.435.pdf)

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- [Charter](#)
- [Membership List](#)
- [Working Groups](#)
- [Emergency Management Updates](#)
- [News and Meeting Announcement](#)
- [SCAPA Meeting Highlight](#)
- [SCAPA Teleconference Highlights](#)
- [Action Items \(pdf\)](#)
- [Contacts](#)
- [Acronyms](#)
- [Publications](#)
- [Links](#)
- [Site Map](#)

Our initial goals

- Populate our source term webpages with more technical information
- Set up a forum to receive source term questions from the DOE community
- Post instructions for submitting questions on the website and send out an announcement of this capability through the SCAPA list serve

Our initial goals (cont)

- Have our panel of distinguished SCAPA source term experts formulate responses
- Work closely with the Biosafety working group to address joint issues
- Question – Do our biosafety consequence assessment capabilities need to handle malevolent acts (e.g., an insider using explosives to breach containment and “blow” hazardous materials into the environment?)

Membership is open...

- Value input and participation from our existing groups – there are rad, chemical, bio, and nano source term issues
- We'll share information via email and have our next teleconference this summer