Criteria for Prioritizing Research Needs Identified by Workshop Participants* HEI Special Scientific Committee on Unconventional Oil and Gas Development December 10, 2014 Workshop Summary

Does addressing the research need contribute to understanding the toxicology of stressors (e.g. dose-response)?

Can research feed directly into decision-making, particularly with decisions that involve community participation?

Will addressing this research need aid in filling additional research gaps?

Can this research produce quantitive or qualitative data? Will data be robust?

Can data be collected, peer-reviewed, and published both in the short term and long term

Will data that fill this research gap impact large areas and populations?

What is the magnitude and level of uncertainty of the potential impact?

How answerable is the research question?

Is existing information from outside Appalachia available that can validate or supplement the research?

How controversial and/or ripe is the topic?

Can the research help understand the state of industry practice?

Does this research identify successes and failures (e.g. failure analysis)?

Does it address a community concern?**

* The HEI Committee has reached no conclusions at this time; therefore, nothing said at the workshop or included in documentation from the workshop, including this table, should be interpreted as a finding or a conclusion of the Committee. Findings from the Committee's work will be discussed at future workshops.

**One workshop participant asked how the committee would address research questions posed by other stakeholders (e.g. academia, industry, non-governmental organizations, etc.).