

NORA Oil and Gas Research Agenda Questionnaire

The purpose of this questionnaire is to collect information from partners to understand which occupational safety and health issues are most critical for future research and collaboration. This questionnaire asks you to identify the topics and issues that you believe are the highest priority in the U.S. oil and gas extraction (OGE) industry. The results from this survey will be used to facilitate discussions of these priorities, resulting in the NORA Oil and Gas Extraction Research Agenda. Your responses are confidential and will not be disseminated to the public.

Public reporting burden of this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-0953).

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1. Please review the **safety hazards** below and indicate which you consider to be Low, Medium, or High priority research areas for improving worker safety in the oil and gas extraction industry:

	Low priority	Medium priority	High priority
On the job roadway incidents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Well-site motor vehicle incidents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commuting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact injuries (struck by/caught between/dropped objects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fires and explosions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pressure-related events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Falls from height	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electrocutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat/Cold Stress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Musculoskeletal disorders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slips/trips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pinch point injuries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Noise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

2. Please review the list of **health hazards** below and indicate which you consider to be Low, Medium, or High priority for improving worker health in the oil and gas extraction industry:

	Low priority	Medium priority	High priority
Respirable Silica	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diesel Particulate Matter (DPM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrocarbon gases and vapors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NORM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrogen Sulfide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dermal Exposures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chronic Health hazards (i.e. cancer, respiratory disease)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acute health hazards (i.e. hydrogen sulfide, hydrocarbon gases)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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3. Please review the list of **cross-cutting issues** below and indicate which you consider to be Low, Medium, or High priority for improving worker safety and health in the oil and gas extraction industry:

	Low priority	Medium priority	High priority
Making the business case/conducting cost-benefit analyses for health and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defining a set of leading indicators for the OGE industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring effective contractor management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing evidence-based lifesaving rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased use of Process Safety Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased use of Safety Management Systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving Safety Climate in the OGE industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring safety and health during the great crew change (retirement of older workforce and transition to younger workers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving emergency response	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lock Out/Tag Out improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering Controls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved use of multi-gas monitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased use of PPE (flame retardant clothes, respirators, hearing protection, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worksite wellness (i.e. smoking cessation, substance abuse prevention, nutrition)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluation of existing federal and state regulations and their effect on health and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessing the existence and needs for recommended practices to address current safety and health hazards on the wellsite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving health and safety of small companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluation of industry-specific education and training programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying the safest shift length and shift rotation situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluation of geographic differences in safety and health hazards (e.g. weather, road infrastructure)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

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4. Please rank (1 being most important) the top 2 research activities for reducing **silica exposures** in the oil and gas extraction industry (considering the new OSHA silica standard):

	1st priority	2nd priority
Evaluation of existing engineering controls being used by industry	<input type="radio"/>	<input type="radio"/>
Development of new engineering controls	<input type="radio"/>	<input type="radio"/>
Surveillance for silicosis	<input type="radio"/>	<input type="radio"/>
Ongoing exposure assessment during hydraulic fracturing	<input type="radio"/>	<input type="radio"/>

Other (please specify)

5. Please rank (1 being most important) the 2 most critical **control technology** evaluation activities for improving worker safety and health in the oil and gas extraction industry:

	1st priority	2nd priority
Silica controls	<input type="radio"/>	<input type="radio"/>
Alternative produced fluid sampling strategies (without opening hatch)	<input type="radio"/>	<input type="radio"/>
Permeation of drilling fluids into skin	<input type="radio"/>	<input type="radio"/>
Drilling rig controls (i.e. pipe handling, automated tongs)	<input type="radio"/>	<input type="radio"/>
"Smart" Lock-out/Tag-out controls (e.g. remote alerts)	<input type="radio"/>	<input type="radio"/>
Remote monitoring of lone workers	<input type="radio"/>	<input type="radio"/>

Other (please specify)

6. Please rank (1 being most important) the 3 most critical **surveillance activities** for improving the type and quality of data collected in the oil and gas extraction industry:

	1st priority	2nd priority	3rd priority
Expand to include long term health effects (i.e. respiratory disease, cancer)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify and analyze work related hospitalizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Track Near Misses/High Potential incidents voluntarily submitted by companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complete case reports with in-depth investigations of serious incidents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect voluntarily submitted leading indicator data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect voluntarily submitted injury and illness data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

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7. Please rank (1 being most important) the **3 worker groups** that you consider the highest priority for improving worker safety and health in the oil and gas extraction industry:

	1st priority	2nd priority	3rd priority
Short service employees (new, inexperienced workers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hispanic workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-English speaking workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temporary workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small contractor employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Young workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aging workforce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lone workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

8. Please rank (1 being most important) the **3 motor vehicle safety** issues that you consider the highest priority for research and intervention.

	1st priority	2nd priority	3rd priority
Fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seatbelt use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speeding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Journey management (minimizing road travel and associated risks, e.g. weather)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Load securement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distracted driving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contractor management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Musculoskeletal injuries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commuting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

9. Please rank (1 being most important) the 2 types of motor vehicle technologies most in need of evaluation.

	1st priority	2nd priority
Fatigue/distracted driver detection	<input type="radio"/>	<input type="radio"/>
In-vehicle monitoring	<input type="radio"/>	<input type="radio"/>
Journey management technologies	<input type="radio"/>	<input type="radio"/>
Predictive analytics	<input type="radio"/>	<input type="radio"/>

Other (please specify)

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10. Please review the list **communication products** below and select those most effective for disseminating research-based recommendations to safety and health professionals in the oil and gas extraction industry? (Select all that apply)

- Short videos
- Hazard Alerts
- Online training tools
- Apps (on the phone)
- Life-saving rules
- Virtual reality tools
- Scientific articles
- Trade journal articles
- Conference presentations
- Other (please specify)

11. Please review the list **communication products** below and select those most effective for disseminating research-based recommendations to workers in the oil and gas extraction industry? (Select all that apply)

- Short videos
- Hazard Alerts
- Online training tools
- Apps (on the phone)
- Life-saving rules
- Virtual reality tools
- Scientific articles
- Trade journal articles
- Conference presentations

Other (please specify)