

Field-level Manager/Supervisor Interview Guide

Assessing Fatigue and Fatigue Management in U.S. Onshore Oil and Gas Extraction
National Institute for Occupational Safety and Health

Opening script (10 minutes)

Hello. My name is [name] and I'm here with my colleague(s) [name(s)]. Thank you for taking the time to speak with me today. We appreciate your willingness to participate! I'd like to talk with you about fatigue while working in oil and gas for the next 60 minutes. We asked to interview you because we are conducting a study to understand how fatigue affects workers in the upstream oil and gas industry and your company has volunteered to participate. We would like you to review the informed consent at this point. We will give you a few minutes to read the form and ask any questions. *When participant is done reading the consent form, walk them through the form.* You may keep the form for future reference.

- Do you have any questions for us?
- Do you give consent to be interviewed?
- Do you give consent for the interview to be recorded?

As we just mentioned during the consenting process, your participation is strictly voluntary, and all of your responses will be completely anonymous. What is said here, stays here so that we can create a safe environment to speak freely without judgement or negative repercussions.

Ground rules

During our 60-minute chat today, I want to learn from your experience working in oil and gas – especially your experiences with fatigue and the potential for companies to use fatigue management practices. When it comes to those experiences, you are the expert. My role will be to help guide the discussion today. I ask that you share your experiences in the industry. There are no right or wrong answers. I will not share your individual responses with your company.

I will record our discussion today as I want to be able to capture everything that is said, but we will not include your name in the transcript or final reports.

Do you have any questions? Are you ready to get started?

[Begin recording if consent to record was verbally obtained]

Introductions and warm up question

Please give me a brief overview of how long you have worked in oil and gas and your current role within the company.

Main questions (45 minutes)

Defining fatigue & general perceptions

1. Today, we're here to talk about fatigue at work. What does fatigue mean to you?

[After some discussion, define fatigue so that the interviewee and interviewer have a shared understanding of what fatigue represents.]

When you are fatigued you lack the energy to complete tasks. On the other hand, when you are sleepy you are likely to fall asleep. So, fatigue is the body's response to not getting enough sleep or having to exert yourself mentally or physically without enough rest. Today, we're going to talk about 'fatigue.'

2. Do you think fatigue is a problem in oil and gas work?
 - a. How does fatigue affect your operations?
 - b. How does fatigue affect worker's ability to do their job safely?
 - i. How does it compare to other "readiness for work" issues, such as alcohol use, heat stress, mental health, and sickness?
3. Do you know of ways to manage fatigue risk?
 - a. Here are a few ways that employers can help manage fatigue at work [hand a piece of paper with this list on it or display virtually]. Have any of your employers used any of these strategies?

Ways employers can help manage fatigue

- Workplace policies or practices to manage fatigue
- Identify what causes fatigue and take steps to manage it
- Provide ways for employees to report if they are too fatigued to work safely
- Provide ways to figure out whether fatigue contributed to a workplace accident
- Provide fatigue management training and education for employees, management, and families
- Employee resources to manage sleep disorders

[After some discussion, come back to the list and define fatigue risk management practices so that the interviewee and interviewer have a shared understanding of what it represents.]

Fatigue risk management is an extension of overall safety management to measure, mitigate, and manage fatigue risk.

Discussion of the operational and financial environment in relation to fatigue management systems

First, I have some questions about the oil and gas industry generally.

4. How would you describe the culture of the oil and gas industry generally? What about the safety culture of the industry?
 - a. How do you think the culture of the oil and gas industry would affect managing fatigue? Is managing fatigue part of the industry's culture of safety?
 - b. Describe the level of priority or support *operators* have placed on fatigue risk management in the past. What have they done to manage worker fatigue – Looking at the list we just discussed, what types of policies and practices did they have?
 - c. What about *companies* you have worked for? Describe the level of support or involvement *companies* have placed on fatigue risk management in the past. What have they done to manage worker fatigue – Looking at the list we just discussed, what types of policies and practices did they have?
 - d. To what extent might fatigue risk management strategies take a backseat to other high-priority initiatives?
5. Thinking of the oil and gas operations that you've been involved with, what factors would make it hard to manage fatigue?

[Let the interviewee answer first. Then mention the following other factors (if not already mentioned), one-by-one, and ask for their opinion on each.]

There might be some other factors that might make it hard to manage fatigue and I'm curious about your thoughts on each:

- Boom and bust cycle
- Work schedule (e.g., 24/7, on-call, unpredictable work, extended work shifts, voluntary overtime, etc.)
- Lone work

- Remote work sites
- Long commutes
- Operator timelines and expectations
- Meeting demands of multiple operators at the same time
- Shortage of qualified workers

Now let's turn to you and your current team.

6. Generally, what processes do you have in place to manage workplace safety risks with your crew?
7. What do you think are the main risk factors for fatigue in your crew's operations?
 - a. In what part of your operations is it a priority to manage fatigue?
 - i. What kinds of safety critical tasks are important to pay attention to when managing fatigue?
 - ii. What kinds of work errors would you pay attention to?
 - b. What practices are in place to make sure crewmembers recognize each other's fatigue risk factors?
 - i. What would you do if someone in your crew reported to you that they or their crew member were too fatigued to work safely?
 - c. What mechanisms are in place with your company where you feel like you and your crew members can report fatigue?
 - i. (If yes) Do **you** feel comfortable using these mechanisms to report fatigue? Why or why not?
 - ii. Does **your crew** feel comfortable using these mechanisms to report fatigue? Why or why not?
 - iii. Can you provide an example of a time you or your crew reported fatigue?
8. What is within your control to manage crew fatigue risk? For example, can you rotate crew shifts, can you shift schedules as needed, can you manage heat stress?
 - a. Some companies use fatigue detection technologies to help manage fatigue risk. Are you aware of any technologies that are being used to manage fatigue at work? Describe how you think these technologies may or may not be helpful.
 - b. If your company wanted to use these technologies, would you be open to using them? Would your crew be open to using them? Why or why not?
 - i. Some example technologies include monitoring systems in vehicles, chest straps to monitor heart rate and skin temperature or reaction or

alertness assessments on a phone or tablet, which one would you be more interested in using and why?

ii. What concerns would you have about these technologies?

9. What does your crew or other workers in the oil and gas industry do to stay alert during their work shifts?

10. What resources and tools do you need to manage crew fatigue?

Discussion of who could help small employers with fatigue-related mitigation strategies

11. When you are looking for safety and health resources, who do you typically go to

a. ...at your company? Tell me about a time when you went to this person(s) for help.

b. ...outside of your company? Tell me about a time when you went to this person(s)/organization(s) for help.

Closing Script (5 minutes)

12. Is there anything you think is important for me to know that we haven't already talked about? Do you have any questions or comments about anything that we've talked about today?

Thank you very much for taking the time to talk with me today. Just in summary, today we talked about the role of fatigue in oil and gas work. We had a great conversation about the things that contribute to fatigue and how employers can help manage fatigue. Over the next several months we will be completing our project and analyzing results. We will share the overall results with your employer once finished. In the meantime, please feel free to reach out to the study lead, Alejandra Ramirez-Cardenas, for any reason. Her contact information is in the informed consent document, if you need another copy of that please let me know. You are eligible for a gift card as a thanks for your participation today. Before you leave please see my colleague [insert name] for your gift card.