

**Attachment F**  
**Mine Worker CPDM Focus Group Guide**

## Mine Worker CPDM Focus Group Guide

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### Focus Group Introduction to Participants:

Hello, my name is \_\_\_\_\_. I work for NIOSH, a non-regulatory agency within the Centers for Disease Control and Prevention (CDC). Our goal is to prevent mining injuries and illnesses through research. For this current research, we are gathering examples of the best ways for coworkers and immediate supervisors to talk with each other to help encourage safety/health behaviors. Because mines already have to use the CPDM, we are using this technology as a communication tool to help encourage discussions around elevated exposures to respirable dust. The goal is to improve communication practices that support health/safety behaviors between workers and also with management over the next several weeks.

As you are aware, the Continuous Personal Dust Monitor is new technology that allows for real-time feedback about your exposure to respirable coal mine dust. However, we are not interested in your end of shift dust counts; rather, we are interested in work tasks that you notice higher dust exposure rates and work behaviors/environmental procedures that may help minimize this exposure. During these meetings we also want to hear about other conversations, related to workplace health and safety, that you have with your direct supervisors. Our goal is to discuss these issues over the course of the next several weeks so we can ask about any changes in communication with your coworkers, management, and any changes in your personal behaviors to reduce exposure to dust and other hazards in your work environment.

Our discussions will last no more than 30 minutes, and time it may take you to complete some checklists about current dust control methods. We are not recording your name(s) and in any public release of results, no data will be disclosed that could be used to identify specific individuals. The information you provide will be grouped together and referenced for similar and differing opinions. Your responses to each question will be kept secure and we encourage you to not share information that other people provide during the discussion. Only NIOSH staff who are involved in collecting or preparing the information for analysis will have access to your answers.

If you do not object to participating, I need you to review and acknowledge this consent form. [Provide form and explain]. Do you have any questions before we begin?

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## Time 1 Facilitator Guide

### Introduction

During these meetings we will discuss work tasks that cause elevated exposure to respirable coal mine dust, based on information viewed by you throughout the week on your Continuous Personal Dust Monitor (CPDM), possible ways that you did or could have lowered your exposure to respirable dust, and any concerns you may have about your respirable dust exposure. I will serve as the facilitator during the weekly meetings. Please be honest during these meetings. You will not be judged for how you have or have not used your CPDM in the past. Any information you provide will increase our understanding and guide the development of programs to help others manage and respond to the information provided by their CPDMs. Therefore, you will be asked to fill out a checklist of any behavior changes or maintenance strategies that you made during the past week.

**Part 1: Each individual worker will fill out Worker Health & Safety Pre-Survey (15 min)**

**Part 2: Each individual worker will fill out the Assessment Worksheet for Workers and Management (15 min)**

**Part 3: Group discussion (15 min)**

### Diagnosis

*Note: Questions developed using the theoretical components cues to action, perceived susceptibility, perceived severity, and autonomy.*

- To your knowledge, is your exposure to respirable dust consistently above the allowable limit?
- When do you notice that your exposure levels to dust are higher?
  - What do you do differently, if anything, to protect yourself while you are working in these areas of higher dust exposure?
  - When you are working in an area that seems to have a high level of dust, who do you tell, if anyone?
    - i. What ideas do he/she/they offer to help lower your dust exposure?

### Severity of Respirable Dust Exposure

- What is your perception of black lung?
- Do you know anyone with black lung? What have been their experiences?
- In general, as miners become more experienced, do you think their health and safety habits change? Why or why not?
- What work habits would you like to change to reduce your chances of black lung?
- What are some ways your organization can help prevent black lung diagnoses of their workers?
- What would a high exposure reading on your CPDM mean to you?

Follow-up: Would you be nervous? Concerned? Indifferent? [Ask why]

**Part 4: Complete worksheet individually (15 min) and then discuss as a group (15 min)**

Okay, let's talk as a larger group about any hazards or risks that elevate respirable dust exposure and some possible strategies to overcome these challenges.

- In what ways does **your job** increase your exposure to respirable dust?
- What have **you been doing** recently to try and reduce your exposure to respirable dust?
- What can **you do** to help other individuals perform their jobs in a way to help minimize the respirable dust emitted?
- What are you going to do this week to try and reduce your exposure to respirable dust?

Does anyone have any questions or comments before we end our meeting? Thank you for your time.

## **Time 2 Facilitator Guide**

### **Introduction**

This week we will continue discussing the output your CPDM displayed since we last met and any changes to your routine behaviors that helped lower your exposures, if any. . The purpose of these discussions is to encourage you to interact with each other, and understand how your job tasks and performance impacts the health and safety of others in the mine.

### **Part 1: Complete worksheet individually (15 min) and discuss in small groups (15 min)**

Okay, let's talk about any hazards or risks that elevate respirable dust exposure and some possible strategies to minimize exposure.

### **Part 2: Discussion as group (30 min)**

### **Action Planning & Intervention**

*Note: Questions developed using the theoretical components perceived benefits, perceived barriers, and autonomy.*

- Explain how you tried to lower your exposure to dust during shifts. [For each behavior listed:]
  - What prompted you to try [this]? (e.g., did someone tell you, you knew the mining environment, etc.)
  - Was [this] effective at lowering your exposure level?
  - What difficulties did you encounter when trying [this method]?
  - How many times have you done [this]?
  - Do you consider [this] a regular, preventative behavior you practice to manage your exposure to dust? If so, how long did it take you to regularly practice [this]?

### **Evaluation**

*Note: Questions developed using the theoretical components self-efficacy, perceived barriers/benefits, and relatedness.*

- What are some situations in which you cannot maintain acceptable levels of respirable dust? (i.e., what changes are beyond your control?) (e.g., mine-wide ventilation system changes).
  - How do you feel when you are in an area of the mine where you cannot avoid high levels of dust exposure?

- How do you feel when you try something to lower your dust exposure and it doesn't work?
- Have any changes you've made during your shifts helped lower your co-workers' exposure to dust?
  - Which ones?
- Have you used information your CPDM provides to initiate a conversation with your supervisor?
  - What have you talked about?
  - How was the information received?
- Have you used information your CPDM provides to initiate environmental changes in the mine that were needed (e.g., ventilation changes)?
  - What changes occurred?
  - Based on the information your CPDM provides, would changing an environmental aspect of the mine help reduce miners' exposure to dust? Explain.
  - Based on the information your CPDM provides, would changing an organizational aspect of the mine help reduce miners' exposure to dust? Explain.
- What are you going to do this week to try and reduce your exposure to respirable dust?

Does anyone have any questions or comments before we end our meeting? Thank you for your time.

### **Time 3 Facilitator Guide**

**Part 1: Each individual worker will fill out the Assessment Worksheet for Workers and Management (15 min)**

**Part 2: Complete worksheet individually and then discuss in small groups (15 min)**

**Part 3: Discussion (30 min)**

#### **Action Planning & Intervention**

*Note: Questions developed using the theoretical components perceived benefits, perceived barriers, and autonomy.*

- Explain how you tried to lower your exposure to dust during shifts. [For each behavior listed:]
  - What prompted you to try [this]? (e.g., did someone tell you, you knew the mining environment, etc.)
  - Was [this] effective at lowering your exposure level?
  - What difficulties did you encounter when trying [this method]?
  - How many times have you done [this]?
  - Do you consider [this] a regular, preventative behavior you practice to manage your exposure to dust? If so, how long did it take you to regularly practice [this]?

#### **Evaluation**

- Have any changes you've made during your shifts helped lower your co-workers' exposure to dust?
  - Which ones?
- Have you used information your CPDM provides to initiate a conversation with your supervisor?

- o What have you talked about?
- o How was the information received?

**Institutionalization**

*Note: Questions developed using the theoretical components self-efficacy, autonomy, and relatedness.*

- Based on your experience using the CPDM to monitor and lower your exposure to dust, do you think the CPDM is a useful tool?
  - o What, if anything, do you think is needed to encourage miners to use a CPDM?
  - o What behaviors should miners adopt to consistently keep their exposure to dust minimal?

**Part 4: Each worker will complete the Worker Health & Safety Post-assessment Survey (15 min)**

That is all the questions I have. Do you have any questions for me? Thank you for your time.