Attachment D
Controls to Reduce Respirable Dust Exposure
Assessment Worksheet for Workers and Management

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Current Controls to Reduce Respirable Dust Exposure:
Assessment Worksheet for Workers and Management

Week #: ___ / Date: _____

What ***do you/your organization already do*** to prevent overexposure to respirable dust? (Check all that you are aware of).

Controlling Respirable Dust on Longwall Mining Operations

Controlling respirable dust on intake roadways

- ☐ Limit support activities during production shifts (e.g., delayed vehicle movement, removal of stoppings, and delivering/unloading supplies during production shifts)
- ☐ Apply water or hydroscopic compounds to control road haulage dust
- ☐ Use surfactants (e.g., soap, detergents to maintain proper moisture in intake roadways)

Controlling respirable dust from the belt entry

- ☐ Check belt for maintenance needs
- ☐ Wet the coal product during transport
- ☐ Scrape and wash belt
- ☐ Use a rotary brush to clean the conveying side of the belt
- ☐ Wet dry belts

Controlling respirable dust in the headgate entry, including the stageloader/crusher

- ☐ Fully enclose the stageloader/crusher
- ☐ Wet the coal in the crusher/stageloader area
- ☐ Use scrubber technology in the stageholder/crusher area
- ☐ Use a high-pressure water-powered scrubber
- ☐ Maintain a gob curtain
- ☐ Position shearer operators outby as the headgate drum cuts into the headgate entry
- ☐ Install a wing or cutout curtain between the panel side rib and the stageloader

Controlling shearer dust

- [ ] Modify face ventilation as needed
- [ ] Use drum-mounted water sprays
- [ ] Maintain cutting drum bits
- [ ] Use directional water spray systems
- [ ] Keep the headgate splitter arm parallel to the top of the shearer
- [ ] Use shearer deflector plates
- [ ] Use crescent sprays to provide uniform wetting of the entire cutting zone
- [ ] Position a spray manifold at the end of the lump breaker
- [ ] Use tailgate-side sprays

Controlling shield dust

- [ ] Use a canopy-mounted spray system
- [ ] Use shield sprays on the underside of the canopy
- [ ] Engage in a unidirectional, rather than bidirectional, cutting sequence

Alternate dust control techniques

- [ ] Use ventilated cutting drums
- [ ] Use foam discharge from the shearer drum
- [ ] Use high-pressure inward-facing drum sprays to confine the dust
- [ ] Use a personal respirator or other personal-protective equipment

Controlling Respirable Dust on Continuous Mining Operations

Continuous miner dust control

- [ ] Use a water spray system (full cone, flat spray, hollow cone, solid stream, etc.)
- [ ] Examine, clean, and/or replace sprays
- [ ] Check water filtration system
- [ ] Use a cut sequence so cut-throughs could be made from intake to returns
- [ ] Use flooded-bed scrubbers to capture dust-laden air from the cutting face
- [ ] Maintain the scrubber
- [ ] Measure airflow in the scrubber
- [ ] Check filter panel thickness
- [ ] Use surfactants to increase wettability of dust
- [ ] Inspect and/or replace dull, broken, or missing bits
- [ ] Modify the cutting method
- [ ] Reduce time working downwind of the bolter

Face ventilation dust control

- [ ] Position operator in the mouth of the blowing line curtain with intake air sweeping from behind
- [ ] Allow the dust-laden air to clear the entry before moving
- [ ] Allow the dust-laden air to clear the entry before stopping the scrubber
- [ ] Position the machine and then go to the end of the curtain before resuming coal cutting

☐ Use blowing face ventilation system
☐ Monitor brattice curtain, keep close to face
☐ Place scrubber discharge on opposite side of the line brattice
☐ Reduce air velocity by flaring out the line curtain at the end
☐ Erect a short line curtain during the slab cut
☐ Use exhausting ventilation system_

Dust control for roof bolters

☐ Maintain the dust collector system
☐ Clean the dust box
☐ Use dust collector bags
☐ Remove and replace the canister filter
☐ Clean the discharge side of the collector
☐ Install a sock on pre-cleaners
☐ Use “dust hog” bits
☐ Position to avoid working downwind of continuous miner
☐ Wet drill/mist drill
☐ Use canopy air curtain
☐ Route miner-generated dust to the return

Dust control for intake airways

☐ Maintain good housekeeping to keep intake entries free of debris, equipment, and supplies
☐ Perform supply delivery, scoop activity, stopping construction, and rock dusting during nonproduction shifts
☐ If haulage activities do take place during production shifts, haulage roadways are kept damp
☐ Equipment is parked in crosscuts

Feeder-breaker and shuttle cars

☐ Use hollow or full-cone sprays at the feeder-break transfer point
☐ Use automated sprays at the mouth of the feeder-breaker when shuttle cars unload
☐ Throat sprays on the continuous miner wet coal when entering the conveyor
☐ Shuttle cars are never in a waiting position behind check curtains
☐ Shuttle car operators are not located in the direct discharge of the scrubber on the continuous miner
☐ Configure shuttle car runs to minimize the amount of time spent in return air

☐ Other (use box below to record other technique to reduce dust exposure)
