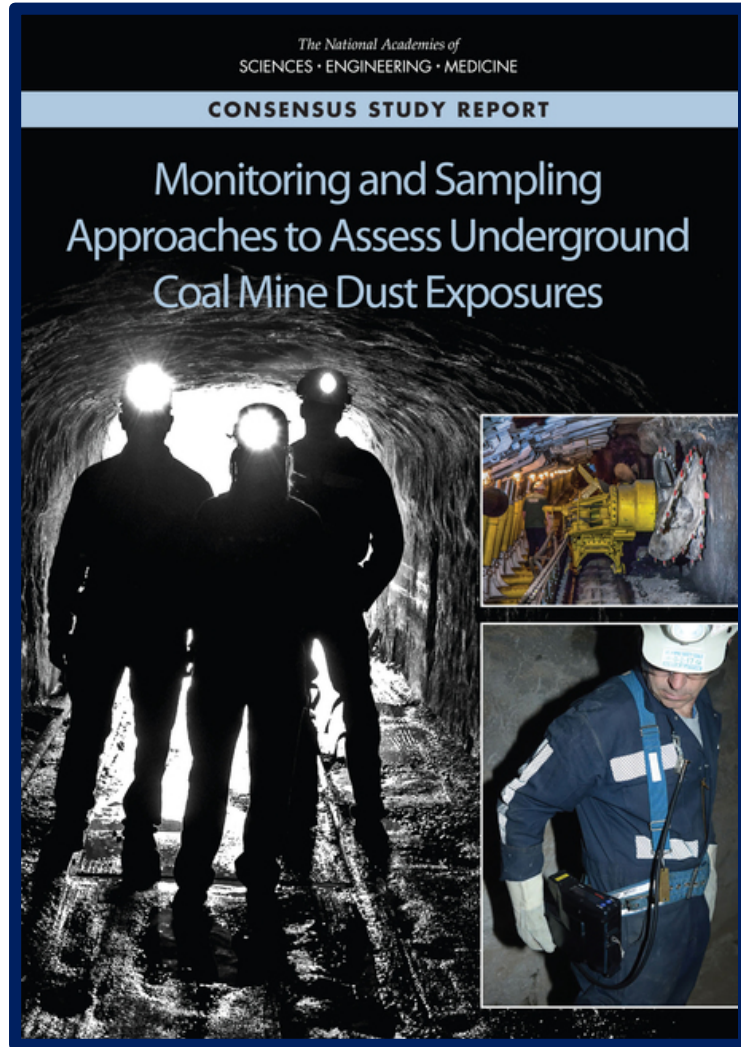


NIOSH Mining Extramural Contracts Program



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NIOSH Mining Extramural Contracts Program

- Since 2007, NIOSH has issued an annual Broad Agency Announcement (BAA) with select topical focus areas identified; Request for Proposals (RFP) on specific topics have also been issued as necessary
- BAA solicitations for Fiscal Years 17, 18, 19, and 20 have included sampling/measurement of respirable crystalline silica (RCS) and coal mine dust (RCMD) as a topical focus area
- Solicitation for FY19 also included investigations specifically related to the NAS report recommendations (*Monitoring and Sampling Approaches to Assess Underground Coal Mine Dust Exposures*) as a topical focus area

Ongoing Contracts Ending in FY20

Contractor	Started	Ends	Project Title
Marshall University with J. H. Fletcher	2015*	2020	Canopy Air Curtain to Reduce Respirable Coal Mine Dust Exposure for Shuttle Car Operators
University of Illinois at Chicago	2016	2020	Miniaturized Wearable Personal Dust Exposure Monitor (WEARDM) for Underground Coal and Silica Mines
Thermo Fisher Scientific	2018	2020	Feasibility Testing of a Near Real Time Respirable Silica Monitor
Thermo Fisher Scientific	2018	2020	Next Generation Continuous Personal Dust Monitor (CPDM)

* RFP Solicitation

New Contracts Started in September, 2019

Contractor	Ends	Project Title
Topical Focus Area: NAS Report Recommendations		
Michigan Technological University (w/ Univ. of Utah)	2021	Temporal and Spatial Characterization of Respirable Coal Mine Dust (RCMD)
Pennsylvania State University	2022	Characterization of Submicron-/Nano-scale Coal Dusts and Their Effects on Miners' Pneumoconiosis and Lung Cancer for Appalachian Coal Mines
University of Nevada, Reno (w/ Desert Research Institute)	2022	Characterization of Respirable Coal Mine Dust Size Distribution, Chemical Composition, and Source Contributions
Virginia Tech	2021	Respirable Crystalline Silica Characteristics and Sources in US Underground Coal Mines
Topical Focus Area: RCS/RCMD Measurement		
University of Nevada, Reno	2022	Development of a Personal Real-Time Respirable Coal Dust and Respirable Silica Dust Monitoring Instrument Based on Photoacoustic Spectroscopy *
Other H&S Topics Proposed by Contractor		
University of Kentucky	2021	Maintenance Free Filters for Continuous Miner Scrubber Systems

* Initial funding by Alpha Foundation

New Contracts Started in September, 2019

Contractor	Ends	Project Title
Topical Focus Area: NAS Report Recommendations		
Michigan Technological University (w/ Univ. of Utah)	2021	Temporal and Spatial Characterization of Respirable Coal Mine Dust (RCMD)
Pennsylvania State University	2022	Characterization of Submicron-/Nano-scale Coal Dusts and Their Effects on Miners' Pneumoconiosis and Lung Cancer for Appalachian Coal Mines
University of Nevada, Reno (w/ Desert Research Institute)	2022	Characterization of Respirable Coal Mine Dust Size Distribution, Chemical Composition, and Source Contributions
Virginia Tech	2021	Respirable Crystalline Silica Characteristics and Sources in US Underground Coal Mines

- Kickoff meeting held November 20, 2019 for contracts under the topical area of Investigations Related to the NAS Report “*Monitoring and Sampling Approaches to Assess Underground Coal Mine Dust Exposures*”
- Goal for kickoff was to facilitate organic interaction, collaboration, cooperation – facilities, data collection
- Provided digital access to 18 volumes of funded research papers from the Generic Mineral Technology Center for Respirable Dust - 1983 through 1998 (now available on OneMine.org)
- ***All of these researchers are looking for field data collection sites***

Mine System Design and Capacity Building Contracts – 2019 to 2023

University	Project Title	Collaborators
Colorado School of Mines	Improving Health and Safety of Mining Operations Through Development of the Smart Bit Concept for Automation of Mechanical Rock Excavation Units and Dust Mitigation	Internal within CSM
New Mexico Institute of Mining and Technology	Respirable Coal Mine Dust (RCMD) Research: Characterization, Deposition, Monitoring, and Mitigation of RCMD and Capacity Building for Mine Health and Safety	Pennsylvania State University University of Nevada, Reno University of Texas Health Science Center at Houston
Virginia Tech	Respirable Coal Mine Dust: Mineral Content Sources, Monitoring and Control, and Building Capacity to Protect Miner Health	University of Kentucky

Note: 3 contracts applicable to RCS/RCMD shown of 7 total contracts

75D301-20-R-67845 FY2020 Broad Agency Announcement Development and Demonstration of Mine Safety and Health Technology

- Included only one topical focus area: Non-Regulatory Personal Measurement of Coal Dust and/or Silica
- 15 of 50 concept paper submittals related to RCS/RCMD
 - majority of these related to topical focus area
 - others related to PPE and technologies to reduce or control dust generation
- Evaluation process underway, possible contracts would begin in September

More Information?

- See the Research/Contracts section of the NIOSH Mining webpage
 - includes contract details and scope summaries
 - <https://www.cdc.gov/niosh/mining/researchprogram/contracts/index.html>

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NIOSH Mining Program
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