

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (CC)

Plans, directs, and coordinates a national program to develop and establish recommended occupational safety and health standards and to conduct research, training, technical assistance, and related activities to assure safe and healthful working conditions for every working person. In carrying out this mission, the Institute: (1) Administers research in the field of occupational safety and health, including the conduct of health hazard evaluations; (2) develops innovative methods and approaches for dealing with occupational safety and health problems; (3) provides medical criteria which will ensure, insofar as practicable, that no employee will suffer diminished health, functional capacity, or life expectancy as a result of work experience, with emphasis on ways to discover latent disease, establishing causal relationship between diseases and work conditions; (4) serves as a principal focus for training programs to increase the number and competence of personnel engaged in the practice of occupational safety and health; (5) develops and coordinates the appropriate reporting procedures which assist in accurately describing the nature of the national occupational safety and health problems; (6) consults with the U.S. Department of Labor; U.S. Department of the Interior; other Federal agencies; and, in cooperation with the PHS Regional Offices, State and local government agencies; industry; and employee organizations with regard to promotion of occupational safety and health; (7) provides technical assistance to other nations in establishing and implementing occupational safety and health programs; (8) in carrying out the above functions, collaborates, as appropriate, with other Centers and Offices of the CDC.

Office of the Director (CCA)

(1) Manages the operations of the Institute; (2) maintains liaison with, and provides advice and assistance to, the U.S. Department of Labor, the U.S. Department of the Interior, other Federal agencies, State and local Government agencies, international health organizations, and outside groups; (3) provides liaison with PHS and Departmental components providing occupational health programs for Federal employees; (4) provides policy guidance and coordination to occupational safety and health activities in the HHS Regional Offices; (5) provides leadership and coordinates the Institute's planning, evaluation, resource allocation, regulations, legislation, committee management, and administrative management activities.

Office of the Deputy Director for Management (CCA6)

Provides leadership, direction, guidance and support across the Institute in the areas of:

(1) information technology and informatics; (2) facilities management; (3) policy, planning and evaluation; (4) fiscal resources management; and (5) human capital management.

(Approved 4/10/2019)

Human Capital Management Office (CCA62)

(1) Serves as the Institute's focal point for Strategic Human Capital Management activities that promote and retain a high-performing, diverse and engaged workforce; (2) coordinates and advises on human capital programs and initiatives; (3) conducts strategic human capital planning activities to ensure all human capital programs are aligned with agency missions, goals, and objectives through analysis, planning, investment, and measurement; (4) implements talent management initiatives to ensure that the Institute has the right people with the right skills in the right position at the right time to accomplish the Institute's mission; (5) creates and sustains a performance culture that engages, develops, retains and inspires a diverse, high-performing workforce by creating, implementing, and maintaining effective performance management and incentive strategies, practices, and activities; (6) initiates labor- management activities that promote a shared vision of mission accomplishment through partnerships with labor unions; (7) provides programs and initiatives that support an engaged and healthy NIOSH workforce; and (8) performs human capital support functions to include monitoring and tracking recruitment and placement activities, maintaining position-based management systems, conducting new NIOSH employee onboarding and orientation, approving incentive and performance awards, planning and implementing awards programs, ensuring manager and supervisor compliance in areas of performance management, managing and providing NIOSH-specific training opportunities, and other human capital support advice, activities and functions.

(Approved 4/10/2019)

Facilities Management Office (CCA63)

(1) Provides leadership, guidance, direction and support for all Facilities Engineering and Environmental Safety and Health functions across the Institute; (2) provides and/or oversees comprehensive facilities operations, maintenance, and support functions for the offices, laboratories, and grounds at NIOSH facilities (Cincinnati, Morgantown, Pittsburgh, and Spokane); (3) serves as the focal point on matters of internal security and safety including facilities security coordination, smart card/ID card issuance and control, access to facilities, and in/out processing; and (4) provides inventory and property management control activities at NIOSH field locations. (Approved 4/10/2019)

Fiscal Resources Management Office (CCA64)

(1) Provides fiscal expertise and oversight to the Institute, divisions and geographic locations across the Institute; (2) provides for sound fiscal stewardship, and ensures compliance with Appropriation Law and all HHS, CDC, NIOSH policies; (3) ensures the most efficient and appropriate allocation of fiscal resources to support NIOSH's research; and (4) handles budget planning and execution oversight, acquisition policy and oversight, and business services oversight for travel management, ICAP processing, P-card and travel card compliance, and timekeeping. (Approved 4/10/2019)

Information Technology and Informatics Services Office (CCA65)

(1) Provides expertise in enterprise architecture, IT policy and planning, data architecture and administration, IT lifecycle management, and subject matter expertise supporting analytical software and the NIOSH Analytical Data Warehouse program; (2) provides information security and resources for NIOSH IT and data security needs across the Institute; (3) provides management of the NIOSH technology platforms providing data, application and analytical services to NIOSH divisions while performing administrative security and patching functions on behalf of the NIOSH user community; (4) provides specialized ready-to-use application platforms, design support and subject matter expertise to NIOSH divisions for core application platforms providing database, analytical, visualization and web services; and (5) supports NIOSH divisions with IT policy, business process development and project management services including compliance requirements for the Federal Information Technology Acquisition Reform Act, the Enterprise Performance Life Cycle, Data Governance and the National Archives and Records Administration. (Approved 4/10/2019)

Policy, Planning, and Evaluation Office (CCA66)

(1) Provides leadership and coordination of the Institute's planning, evaluation, legislative, committee management, and policy activities; (2) provides technical assistance to NIOSH scientists; (3) designs and carries out evaluation studies based on evidence-based evaluation methodologies, and advances the ways NIOSH demonstrates the relevance and impact of its work; (4) ensures budget formulation through the Congressional budget and appropriations process, and coordinates responses to requests from Congress, OMB, HHS, and others; (5) coordinates FOIA and Privacy Act responses; (6) oversees and coordinates project planning, strategic planning, research program portfolio management, and program evaluation across the Institute; and (7) provides oversight for Committee Management for NIOSH's two main Federal Advisory Committee Act responsibilities (the Board of Scientific Counselors and the Mine Safety and Health Research Advisory Committee). (Approved 4/10/2019)

Health Effects Laboratory Division (CCC)

(1) Provides new focused research capabilities in mechanisms of occupational disease and identifies causative substances and early indicators (biomarkers) of response to chemical, biological, and physical substances which will be directed at prevention and control of occupational disease and integrated into the field research and services programs in NIOSH; (2) develops new state-of-the-art research techniques in physiology, human and animal cellular and molecular pathology; (3) develops new state-of-the-art research techniques in the areas of biochemistry, immunotoxicology, pharmacology, molecular and cellular biology, genetic toxicology, and imaging; (4) provides new research to develop and improve methods for environmental measurement of aerosols; (5) develops and evaluates (including development of performance criteria) intelligent, real-time personal and area direct reading instruments for chemical, biological and physical agents; (6) develops and improves techniques for measuring exposures and human responses to workplace exposures; (7) develops new research techniques in the areas of aeromicrobiology, particle characterization, molecular characterization, micro-

sensors, advanced sampling and instrumentation, electronic monitoring, electrical and mechanical engineering; (8) develops new methodologies for exposure modeling of current and past exposures for use in applied research; (9) provides new research capabilities for developing and establishing engineering solutions for the control of occupational diseases and for utilizing engineering techniques to solve problems; (10) develops new research techniques in the areas of computerized workplace simulations and mathematical models; (11) provides environmental and biological laboratory services for all field and laboratory programs in NIOSH; and (12) develops and evaluates effective communication strategies for promoting health education to communicate risk and prevention recommendations to those at risk and form coalitions to advocate prevention activities. (Approved 11/18/1994)

Toxicology and Molecular Biology Branch (CCCB)

(1) Provides focused research in workplace exposures and identifies causative substances and biomarkers of response to chemical, biological, and physical substances; (2) develops laboratory techniques or modifications that could be useful for population-based or large environmental testing; (3) develops molecular programs to examine the toxic effects of workplace exposures/agents on human, animal, and cellular systems; (4) defines the levels and circumstances of exposures that lead to development of pre- and post-toxic biomarkers, toxic responses, repair of damage or alleviation of damage, mechanisms of toxicity, and recommendations for prevention and control of toxic exposures; (5) develops integrated research programs in areas including cell to cell communication, cellular interaction, genome activations, responses to and production/release of cellular signals; and mechanisms of control, blockage, and homeostasis of cellular systems, broadly interpreted with respect to environmental and occupational agents; (6) studies microbial cellular components and production and release of exotoxins and mycotoxins in context with the holistic human and animal response, including targets such as the lung, skin, and nervous system; and (7) provides support to the Division on state-of-the-art research in the areas of toxicology, molecular and cellular biology. (Approved 11/18/1994)

Pathology and Physiological Research Branch (CCCC)

(1) Provides research into new ways to identify disease mechanisms, develops pre-disease early warning systems, identifies methods for repair or resolution of disease, and develops and applies new imaging techniques; (2) examines in an applied and preventive research mode the effects of workplace exposures on human and animal body functions and cellular response-receptors in the development of disease/dysfunction, mechanisms of action, early functional markers of detection, and recommendations for prevention and control/intervention; (3) provides advice and collaborative service for NIOSH investigators interested in physiological/pharmacological effects of workplace exposures on field-based and animal/cellular systems; (4) examines the alteration of function based on pre-existing disease, induced-disease, or cellular/organ structural impairment in the context of responses to occupational exposures, both actual and laboratory-generated; (5) assists HELD and other NIOSH divisions by providing animal exposure and pathological support in the development, use, and evaluation of exposure systems that mimic the occupational situation, reach the target organ, and results in sensitive models of change,

structural or functional; (6) provides animal pathology support to researchers through the development of sensitive animal-specific tools, molecular probes, or recognition techniques that can be modified or used for animal models of occupational disease/exposure.

(Approved 11/18/1994)

Exposure Assessment Branch (CCCD)

(1) Provides research methods for the Division to develop and improve methods for environmental measurement of aerosols; (2) develops and evaluates real-time personal and area direct reading instruments for chemical, biological, and physical agents; (3) develops techniques for measuring human responses to workplace exposures; (4) provides new research techniques in the areas of aeromicrobiology, particle characterization, molecular characterization, micro sensors, advanced sampling and instrumentation, electronic monitoring, and electrical and mechanical engineering; (5) coordinates with other NIOSH laboratory-based research (particularly the toxicology and molecular biology research), as well as NIOSH field studies and health hazard evaluations to advance exposure assessment methods; (6) develops new methodologies for exposure modeling of current and past exposure for use in applied research (epidemiological and molecular epidemiological studies). (Approved 11/18/1994)

Physical Effects Research Branch (CCCE)

(1) Provides research capabilities for developing and establishing engineering solutions for the control of occupational disease; (2) coordinates with the Exposure Assessment Branch to develop engineering techniques to solve problems in measuring and monitoring programs; (3) develops and utilizes techniques in computerized workplace simulations and mathematical models; (4) develops passive protective devices and systems for preventing or minimizing worker exposure to hazardous chemical, biological, and physical substances; and (5) develops sophisticated personal protective equipment to provide workers with information about their working environment. (Approved 4/10/2019)

Allergy and Clinical Immunology Branch (CCCG)

(1) Conducts basic and applied laboratory research in areas of immunology, allergy and inflammation relevant to occupational diseases; (2) provides research laboratory collaboration to support clinical and field investigations focusing on occupational diseases mediated by inflammation and immunity; (3) searches for underlying mechanisms and improved laboratory based approaches to prevent, identify and manage these diseases; identification, characterization and assessment of exposure to high and low molecular weight allergens; assessment of workplace exposures to microbial agents and their constituents; and assessing the impact of workplace exposures on inflammation, immunity, host defense, and their interactions.

(Approved 12/27/2004)

Bioanalytics Branch (CCCH)

(1) Provides experimental design and support of laboratory-based research to address the statistical aspects of projects in the Division and throughout the Institute; (2) verifies the statistical quality, both in the design and analysis phases, of all experimental research in the Institute; (3) develops and directs the application of new statistical methods as well as the design and analysis of field research projects for the Institute; (4) develops computerized methods for independent research initiatives in statistical methods to advance basic research in experimental and observational studies; and (5) collaborates in the design of laboratory and field research studies, providing consultation through the course of research on computerized methods of data collection and interpretation of results. (Approved 4/10/2019)

Chemical and Biological Monitoring Branch (CCCK)

(1) Conducts applied research and establishes the methods for the identification and assessment of occupational exposures using biomonitoring, industrial hygiene field- and laboratory-based analytical methods, direct reading instruments and sensors, advanced microscopy techniques, and aerosol science; and (2) serves as an Institutional resource and collaborates with internal and external partners as related to application of these areas for occupational exposure assessment research focusing on novel and emerging issues. (Approved 4/10/2019)

Division of Science Integration (CCE)

(1) Conducts research that will lead to the prevention of occupational disease, deaths, and injuries through the evaluation and synthesis of scientific information, and forecasting the emergence of technologies that impact work, how work is organized, and how to stimulate change in the work environment; (2) researches and develops preventive outcomes so that workers are protected from workplace hazards; (3) identifies factors that impact the conduct of work and that are potentially harmful to workers and the workforce; (4) develops recommendations and guidance for safe and best practices by building on research, evaluation, synthesis of information, and collaboration across branches and programs; and (5) conducts studies of the most effective ways to translate research and guidance to practice through utilization of hazard and risk information to apprise employers, workers, and decision makers of the extent and severity of workplace risks to be prevented and the means to do so. (Approved 4/10/2019)

Science Applications Branch (CCEB)

(1) Develops interventions and preventive guidance to protect the workforce from adverse effects of work and workplace hazards through the evaluation and synthesis of scientific research; (2) conducts research to address the range of workplace hazards in their chemical, physical, and biological forms and conducts research on the organization of work, which will lead to the development of guidance on various hazards and analytical methods; and (3) prioritizes and informs guidance development through the use of risk assessments and exposure science. (Approved 4/10/2019)

Social Science and Translation Research Branch (CCEC)

(1) Conducts research on work and non-work factors that lead to adverse effects in workers and develops guidance to ameliorate those factors through focusing on understanding and investigating the environment of work; (2) conducts research on how work is organized and the implications for health, productivity, and prevention; (3) provides leadership via a virtual cross-Institute effort in translation research which is the application of scientific investigative approaches to study how the outputs of basic and applied research can be effectively translated into practice and have an impact, including the study of how useful knowledge and interventions are disseminated, adopted, implemented and institutionalized; and (4) conducts research and develops guidance on vulnerable populations including young, aging, contingent, and immigrant workers, and small businesses. (Approved 4/10/2019)

Risk Evaluation Branch (CCEE)

(1) Identifies occupational health and safety hazards through qualitative reviews of the scientific literature; (2) conducts quantitative risk analyses of health and safety hazards; (3) researches and develops new quantitative risk assessment methodologies; (4) identifies information on worker exposures for risk characterization; (5) assists the Director of NIOSH in establishing a priority system for document development and recommended standards; (6) conducts intervention studies on the effectiveness of current standards in preventing occupational diseases and injuries; and (7) conducts scientific reviews of internationally produced documents. (Approved 1/15/1997)

Emerging Technologies Branch (CEEG)

(1) Conducts research and gathers information that facilitates forecasting, identifying, evaluating, and developing guidance on potential hazards in new or emergent technologies; (2) collaborates with other branches, divisions, programs, and agencies that research and investigate new technologies to identify and increase understanding of hazards as a technology emerges and information on it as it is deployed; (3) conducts research addressing nanotechnology, advanced manufacturing and materials, synthetic and engineered biology, and other technologies as they emerge; (4) manages and coordinates the Nanotechnology Research Center; and (5) develops recommendations and guidance, utilizing Prevention through Design (PtD) concepts, and leads the PtD program. (Approved 4/10/2019)

Respiratory Health Division (CCH)

The Respiratory Health Division (RHD) seeks to advance protection against work-related hazards and exposures that cause or contribute to respiratory illness, injury, and death and to promote workplace-based interventions that improve respiratory health. To accomplish its mission, the Division gathers and synthesizes information, makes recommendations, and delivers products and services to a range of stakeholders, including partners able to effect prevention. Specifically, RHD: (1) Prevents work-related respiratory disease and improves workers' respiratory health by generating new knowledge and transferring that knowledge into practice; (2) plans, designs, and conducts a national research program relevant to preventing occupational

respiratory disease and optimizing workers' respiratory health; (3) upon request, conducts hazard evaluations and provides technical assistance to address challenges, including emerging issues, in occupational respiratory disease; (4) plans, designs, and conducts a national surveillance program for occupational and work-related respiratory disease; (5) communicates study findings to prevent occupational respiratory disease and optimize workers' respiratory health, and evaluates the effectiveness of these communications; (6) administers a program of legislatively mandated medical monitoring services for coal miners under the Federal Mine Safety and Health Act of 1977; and (7) provides rewarding educational and training opportunities in occupational and work-related respiratory disease prevention to visiting scientists, Epidemiologic Investigations Service Officers, fellows, residents, interns, students and others through a variety of temporary assignments in various Division activities. (Approved 9/17/2015)

Office of the Director (CCH1)

Directs and manages the operations of the Respiratory Health Division. (Approved 9/17/2015)

Field Studies Branch (CCHB)

(1) Plans, designs, and conducts short- and long-term field investigations relevant to preventing occupational respiratory diseases and optimizing workers' respiratory health; (2) responds to requests for health hazard evaluations and technical assistance relevant to occupational respiratory disease; (3) conducts morbidity and mortality studies relating to occupational respiratory diseases in selected worker populations and the general population in order to identify causal agents and other risk factors, quantify exposure effect relationships, and evaluate prevalence and severity of specific respiratory diseases; (4) conducts environmental studies, medical test evaluations, industrial hygiene research, laboratory research, demonstrations of workplace exposures and controls, and studies the challenges created by new technologies; (5) provides statistical design and implements data analysis and verification for Division research projects; and (6) develops and evaluates research methods of data collection, processing, and statistical analysis that are relevant to the Division mission, including medical tests, sampling approaches and equipment, sample analyses, exposure and dose assessment and modeling (including dermal exposure), bioavailability of exposures, biomarkers of exposure and health effects, and protective measures. (Approved 9/17/2015)

Surveillance Branch (CCHD)

(1) Collects, analyzes, and disseminates accurate and timely health and hazard information related to occupational respiratory diseases and workers' respiratory health, and collaborates in the establishment and analysis of health surveillance systems at the national and state level in order to: (a) provide information relating to overall incidence, prevalence, mortality, and impact of occupational respiratory diseases and workers' respiratory health; (b) describe the occurrence of specific diseases with regard to occupation, industry, exposures, geography, demographic characteristics, temporal trends, and other relevant factors for which information is available; (c) describe the distribution and trends in occupational exposure to agents responsible for respiratory diseases; (d) identify emerging risks for respiratory disease; (e) assess racial/ethnic and other disparities in the occurrence of occupational respiratory diseases and occupational exposures to

agents responsible for respiratory diseases; and (f) evaluate impact of interventions, policies, and program activities on the occurrence of occupational respiratory disease; (2) synthesizes data to frame recommendations for priority setting, hypothesis generation, and improved methods for data collection; (3) disseminates information through development and publication of timely information and reports describing workplace hazards and exposures and work-related occupational lung diseases, and application of communication science, media principles, and web design to enhance access to and use of data and information; (4) develops and evaluates innovative surveillance methods; (5) coordinates with other Federal agencies, promulgates rules, and implements programs as authorized by the Federal Mine Safety and Health Act of 1977 and its subsequent amendments, to provide for the collection and reporting of health and hazard surveillance data related to occupational respiratory diseases in coal miners, including planning, coordinating, and processing the medical examinations provided for miners, operating an approval program for participating medical facilities and physicians, and evaluating and approving employer programs for the examination of miners in accordance with published regulations; (6) provides technical assistance and recommendations concerning medical screening and health surveillance of workers exposed to respiratory hazards in the workplace, including administering a national program of spirometry training, providing training and testing on the classification of radiographs for the pneumoconioses, and collaborating with national (e.g., American College of Radiology, American Thoracic Society) and international (e.g., International Labour Organization) groups to develop and improve occupational respiratory disease medical surveillance methods; and (7) establishes collaborations to identify, support, and evaluate interventions designed to improve respiratory health in the workplace.

(Approved 9/17/2015)

Division of Safety Research (CCJ)

(1) As the focal point for the Institute's occupational traumatic injury prevention and safety program, identifies the major causes of injuries and safety hazards, identifies interventions to improve worker safety, and supports implementation of these interventions; (2) develops scientifically sound recommendations for programs to prevent and control occupational traumatic injuries; (3) develops scientifically sound recommendations for the performance and use of equipment and various other devices for protecting workers; (4) evaluates the impact of targeted control programs for preventing or mitigating traumatic injury, diseases, disability, and death; (5) manages program planning/project coordination, including the Division's financial and personnel management systems, and ensures the scientific and program integrity of Division functions. (Approved: 6/7/2002)

Analysis and Field Evaluations Branch (CCJB)

(1) Identifies causes or specific risk factors and hazards associated with fatal and non-fatal occupational traumatic injuries (acute, subacute, chronic, or cumulative) and safety failures; (2) determines the impacts and efficacy of intervention strategies and safety systems for the prevention of these conditions, and the promotion, maintenance, or restoration of an injury free, well-protected work force; (3) develops scientifically sound methods for the conduct of analytic epidemiologic investigations and applied field intervention trials to assess the effectiveness of

new, redesigned, and existing technical, managerial, regulatory, and system safety engineering and occupational medicine approaches and programs for preventing injuries and for utilizing recommended work practices and equipment; and (4) provides technical assistance to other components of the Division and to other occupational safety and health entities in evaluating and improving the implementation of recommended interventions. (Approved 12/12/2003)

Protective Technology Branch (CCJC)

(1) Designs and develops new and improved safety engineering systems and controls, protective equipment, and work practices to protect workers from all types of trauma; (2) develops and validates test and measurement methods necessary to conduct safety controls and equipment research; (3) tests and evaluates, in the laboratory, simulated workplace, and actual work-sites, existing and new technological approaches to worker protection, and occupational injury prevention and control; (4) analyzes potentially hazardous operations using systems safety and/or other engineering techniques to identify safety engineering control and safe work practice strategies; (5) evaluates the use and performance of safety engineering controls and protective equipment; (6) develops scientifically sound recommendations for the performance and use of existing or redesigned safety engineering controls, work practices, protective equipment, exposure assessment tools, and occupational safety research technologies; (7) develops technical information to support recommendations for safety standards; (8) provides recommendations to the Analysis and Field Evaluations Branch regarding specific hazards or interventions requiring further epidemiologic research and/or evaluation; (9) provides technical assistance and consultation to other Branches within the Division of Safety Research, other components of NIOSH and CDC, other Federal agencies, and other public and private sector organizations on the use of protective technology for the prevention of worker exposures to safety hazards that lead to injuries. (Approved 12/12/2003)

Surveillance and Field Investigations Branch (CCJD)

(1) Identifies and describes distributions of fatal and non-fatal occupational traumatic injuries and safety hazards; (2) collects, reviews, and summarizes data on injuries and safety hazards, including the major types of traumatic injury and death among workers and those due to the failure of safety measures; (3) conducts in-depth investigations of selected cases or clusters of injuries or safety hazards; evaluates trends in occupational injury at the national level; (5) makes comparisons among rates found for regions, industries, occupations, and other important variables; (6) provides data which serves as a basis for planning, providing, and evaluating occupational injury prevention and safety services; (7) identifies specific problem areas to be investigated further by the Analysis and Field Evaluations and Protective Technology Branches; (8) provides assistance to State agencies to upgrade occupational injury and injury hazard surveillance at the State level. (Approved 12/12/2003)

Division of Field Studies and Engineering (CCK)

(1) Conducts the legislatively mandated health hazard evaluation and industry-wide research programs through longitudinal record-based studies and field studies to identify the occupational causes of disease in working populations and their offspring, and determines the incidence and

prevalence of acute and chronic effects from work-related exposures to hazardous substances; (2) conducts exposure, epidemiologic, and engineering research for input to standards to control occupational health hazards; (3) plans and conducts worksite and laboratory engineering research to identify, evaluate, develop and implement technology to prevent workers' exposures to chemical, biological, and physical agents; (4) plans and conducts laboratory and worksite research to develop strategies to prevent occupational hearing loss and musculoskeletal disorders; (5) develops and maintains data systems, using national and state data, that track the magnitude and extent of job-related illnesses, exposures, and hazardous agents among the nation's workers; (6) provides support for first responders during national emergency response activities; and (7) provides technical assistance and consultation on matters pertaining to occupational safety and health to other Federal, state, and local agencies, and other groups or individuals. (Approved 4/10/2019)

Hazard Evaluations and Technical Assistance Branch (CCKB)

The Health Evaluations and Technical Assistance Branch conducts the legislatively-mandated health hazard evaluation program in response to employer and employee representatives requests for hazard evaluations and toxicity determinations, including coordinated medical and industrial hygiene field surveys; provides medical/epidemiologic and industrial hygiene technical and consultative assistance to Federal, State, and local agencies, labor, industry, and other groups or individuals to control occupational health hazards and to prevent occupational illness and disease. (Approved 12/8/2003)

Field Research Branch (CCKC)

(1) Conducts and supports etiologic and exposure assessment research studies in working populations; (2) communicates research results to workers, scientists, industry, and the public; (3) provides research data for the development of health hazard controls and protective standards; and (4) conducts research using workers' compensation data and systems to identify hazards and improve workplace safety and health. (Approved 4/10/2019)

Health Informatics Branch (CCKD)

(1) Develops, maintains, and uses data and record systems to track the magnitude and extent of job-related illnesses and exposures among the nation's workers using new and existing data from sources such as Federal, State, and local agencies, labor, industry, tumor registries, medical, laboratory, and other records; (2) uses novel research methods to identify and develop, or in certain instances, support the development of new sources of data for surveillance and research purposes; (3) develops new surveillance research methods; and

(4) uses new technologies to communicate health and exposure information to stakeholders and the public. (Approved 4/10/2019)

Engineering and Physical Hazards Branch (CCKE)

(1) Plans and conducts research on engineering control technology to prevent worker exposures to hazards and promotes the application of effective engineering control technologies for safeguarding worker health and safety; (2) provides consultation in the application of effective control solutions and techniques for hazard prevention; (3) conducts research related to occupational hearing loss, including causative factors, noise control, hearing protection devices, and impulse noise to prevent occupational hearing loss for workers at risk in non-mining sectors; (4) conducts research related to ergonomic hazards including developing engineering controls in the laboratory and evaluating their effectiveness in the workplace to prevent workplace musculoskeletal disorders; and (5) conducts rapid prototype research to design and develop control solutions to workplace exposure problems. (Approved 4/10/2019)

National Personal Protective Technology Laboratory (CCL)

The National Personal Protective Technology (NPPTL) prevents work-related injury, illness, and death by advancing the state of knowledge and application of personal protective technologies (PPT) including instrumentation, respiratory protective devices (RPD), and a diversity of personal protective equipment (PPE) used for the protection of American workers. To accomplish this mission, NPPTL leads and coordinates the National Institute for Occupational Safety and Health's (NIOSH) programs, projects, and policies related to PPT across the Institute. NPPTL: (1) identifies the need for research, conducts and coordinates research to support the development of new technologies, performance, quality and reliability standards, Federal regulations, safety and health criteria, and Institute policy; (2) conducts a variety of laboratory and field investigations relating to the development and evaluation of innovative technologies; (3) directs, implements, and provides national guidance related to conformity assessment programs and functions (e.g. inspection, testing, certification, quality assurance, surveillance); (4) provides national leadership serving on national and international PPT consensus standard setting committees; (5) develops and promulgates standards and regulations; (6) produces and disseminates scientific reports and national guidance documents including research, laboratory and field studies, safety and health investigations, scientific criteria, and national guidance; (7) designs and implements information technology functions including national or program databases, trusted sources for public information and social marketing; and (8) coordinates program support functions including budget, facilities, growth initiatives, and communications, and scientific support functions such as Committee on Personal Protective Equipment and Institute of Medicine evaluations, special projects, non-respiratory PPE conformity assessment, and federal and consensus standards across NIOSH. (Approved 6/10/2015)

Conformity Verification and Standards Development Branch (CCLE)

(1) Administers the Department of Health and Human Services Title 42 Code of Federal Regulations (CFR), Part 84-Respiratory Protective Devices conformity assessment functions (i.e. inspection, testing, certification, documentation control, quality assurance, and surveillance) including: a) processing respirator approval applications by verifying conformance with Federal regulations and national consensus standards such as performance, quality, reliability, and

documentation requirements to determine the effectiveness of respirators used during entry into or escape from hazardous atmospheres, b) issuing or revoking NIOSH certificates of approval, c) evaluating and maintaining official records on NIOSH- certified respirators including the establishment of NPPTL and national databases, d) recommending NIOSH policy relating to RPD conformity verification criteria for traditional and innovative respirator technologies and applications, and, e) investigating and processing Freedom-of- Information-Act requests; (2) establishes and administers an internal audit program to evaluate the conformity assessment functions of NPPTL; (3) maintains official files of policies, standards, standard operating and test procedures used as the basis for granting a NIOSH certificate of approval; (4) provides national recommendations for effective conformity assessment programs associated with non-respiratory PPT; (5) assesses research findings and translates them into effective conformity assessment recommendations for NIOSH policy, standards, regulations, and surveillance practices, for new protective technologies or special applications of existing technologies; (6) leads NIOSH participation in the development and promulgation of national and international consensus standards, conformity assessment program criteria and guidance, establishment of Federal regulations where necessary, and assesses of economic impact of Federal regulations; (7) prepares criteria for proper selection, recommends national guidance for effective use (e.g. cautions, limitations, and restrictions of use) and maintenance, and provides technical support; (8) plans and conducts public meetings to solicit or provide information concerning technology and conformity assessment practices; and (9) prepares and disseminates national reports related to conformity assessment of PPT. (Approved 6/10/2015)

Research Branch (CCLG)

(1) Conducts hypothesis testing-based PPT research with an emphasis on respiratory protection, protective clothing, and ensemble research; (2) encourages and conducts research related to innovative technologies to improve the use and usability of existing and new PPT products; (3) conducts laboratory and field research projects to measure performance, quality, reliability, and efficacy of the materials, components, and sub-systems used in PPT as well as complete equipment systems, especially for new or emerging hazards, and recommends criteria to improve the selection, care, maintenance, and use of PPT; (4) investigates emerging hazards and personal exposures to identify worker PPT needs and technology gaps; (5) conducts research to identify and recommend effective integration strategies and evidence- based test methods for PPT for use in PPT standards; (6) recommends performance, quality, reliability, and efficacy criteria; (7) studies and improves human/technology interfaces to better understand and mitigate barriers to effective PPT selection, care, maintenance, and use; (8) conducts laboratory and field-based research into the biomechanical, physiological, and psychological stressors and worker responses to PPT; (9) conducts research, developing interventions, and identifies innovative methods (e.g., new software tools, information technology, social marketing, training methods, practices, equipment, etc.) of increasing end-user compliance with proper selection, care, maintenance, and use of PPT; (10) provides systematic collection, analysis, and interpretation of PPT use practices, including investigation of barriers to effective PPT use; (11) produces and disseminates technical information, research findings, training materials, and recommendations for PPT to improve protection of workers; (12) evaluates and disseminates PPT performance trends published

through the post market surveillance activities; and (13) identifies and implements an effective communication and outreach program for stakeholders within the NIOSH sectors to inform end users of proper selection, care, maintenance, and use of PPT. (Approved 6/10/2015)

Evaluation and Testing Branch (CCLH)

(1) Conducts evaluations and tests in accordance with prescribed standard test procedures of RPD in support of NIOSH conformity assessment functions that lead to a NIOSH certificate of approval or its revocation; (2) conducts quality management system in-plant manufacturing-site evaluations including post market surveillance, and documents finding and recommendations in proper reports; (3) conducts evaluation and testing of PPT for various purposes, and prepares reports for dissemination to the public; (4) provides testing support to the NPPTL research and standards development initiatives; (5) develops evaluation methodologies, and unique test procedures to address new protective technologies or special applications of existing technologies; (6) conducts post market evaluations of NIOSH-certified RPD including the long-term field evaluation program, and prepares technical information and reports to improve standards for certification, selection, care, and use; (7) administers and conducts surveillance of field deployed PPT to evaluate conformance to applicable regulation, consensus standards, and NIOSH policy; (8) conducts investigations of PPT associated with complaints of nonconformance and/or concerns related to adverse health and safety including evaluations and analysis associated with NIOSH- certified respirators (e.g. certified product investigation process), and evaluating respirators and protective clothing submitted in conjunction with the NIOSH Fire Fighter Fatality Investigation and Prevention Program investigations conducted by the Division of Safety Research ; and (9) maintains and improves laboratory capabilities to perform evaluation and testing of PPT including innovative technologies, implements a laboratory quality program (e.g., ISO 17025) to ensure quality and continuous improvement of PPT evaluations and tests, administers and maintains a chain of custody program to secure technologies or products obtained for evaluation and testing, and conducts an internal audit function to assure evaluation and testing are carried out in accordance policy and standard procedures. (Approved 06/10/2015)

Division of Compensation Analysis and Support (CCN)

(1) Conducts a program in support of Federal rulemaking to promulgate science-based methods and guidelines mandated by the Energy Employees Occupational Illness Compensation Program Act of 2000 (known as the “Act”) to estimate the occupational radiation doses of claimants under the Act and evaluate the relationship between such doses and cancers incurred by the claimants; (2) develops and implements a program of science-based analysis and policymaking by which the Secretary of Health and Human Services shall consider and issue determinations on petitions by classes of employees to be included as members of the Special Exposure Cohort established under the Act; and (3) conducts a program of individual dose reconstruction to estimate and report the radiation doses of claimants under the Act. (Approved 2/23/2010)

World Trade Center Health Program (CCP)

(1) Provides the leadership and management to comply with the responsibilities under the James Zadroga 9/11 Act of 2010; Title XXXIII of the Public Health Service Act; (2) administers the World Trade Center Health Program (WTCHP); (3) develops, implements, and maintains a WTCHP quality assurance program; (4) provides annual reports to Congress; (5) consults with stakeholders in carrying out the WTCHP mission; (6) establishes and administers a WTCHP Scientific Technical Advisory Committee; (7) develops and implements an education and outreach program; (8) provides for uniform data collection and for data integration; (9) provides for collaboration between Data Centers and World Trade Center (WTC) Health Registry; (10) enters into and oversees contracts for Clinical Centers of Excellence, Data Centers, and Nationwide Provider Networks; (11) enters into agreement with New York City for purposes of collecting 10% of the specified funds stated in the Zadroga 9/11 Act of 2010; (12) ensures continuity of care; (13) reimburses Clinical Centers of Excellence for infrastructure costs; establishes a process for enrollment of WTC responders, and Pentagon and Shanksville responders; conducts reviews to determine if cancer/types of cancer should be added to list of WTC-related health conditions; (16) issues regulations for medical necessity; (17) reimburses costs for initial health evaluation, monitoring, and treatment; (18) establishes a process to determine and certify screening-eligible WTC survivors as certified-eligible survivors; (19) administers/collects recoupments from private insurance and workers compensation; (20) conducts and/ or supports research; (21) ensures that a Registry of 9/11 victims is maintained; (22) enters into agreement(s) with the Centers for Medicare and Medicaid Services for provider reimbursements; and (23) ensures compliance with all Health Insurance Portability and Accountability Act of 1996 (HIPAA) Public Law 104-191, statutory and regulatory provisions that govern the WTCHP as a covered entity, as well as any HHS HIPAA policies through the establishment of a WTCHP HIPAA Compliance Program. (Approved 4/28/2014)

Office of the Director (CCP1)

Conducts the legislatively mandated World Trade Center (WTC) Health Program established by the James Zadroga 9/11 Health and Compensation Act of 2010, as amended. (1) Provides management, strategic planning and oversight, budget formulation and execution, science and medical policy oversight and development, industry expertise, and contract transition oversight; (2) consults with stakeholders in carrying out the WTC Health Program mission, develops and disseminates all WTC Health Program communications, and provides oversight for public relations and media strategy; and (3) oversees all program statutory directives in the Zadroga Act to provide medical monitoring and treatment to eligible responders and survivors who were affected by the September 11, 2001, terrorist attacks.(Approved 3/4/2024)

Healthcare Benefits Branch (CCPB)

The Healthcare Benefits Branch confirms eligibility for Program benefits and implements a limited health benefits model to provide quality and compassionate medically necessary treatment and monitoring of WTC-related health conditions to eligible members in the WTC Health Program. Specifically, the branch: (1) Develops recommendations for the Administrator

of the WTC Health Program for medical coverage determinations including medically necessary diagnostic, cancer screening, and treatment services allowed under the WTC Health Program; (2) establishes and maintains the pharmaceutical formulary and conducts compliance as well as outlier audits with the Pharmacy Benefit Manager, Clinical Centers of Excellence, and the Nationwide Provider Network vendors; (3) provides subject matter expertise to contracting officer representatives for contracts such as the Clinical Centers of Excellence, Nationwide Provider Network, Cost Avoidance, and Pharmacy Benefit Manager contract statements of work; (4) provides enrollment recommendations to the Administrator of the WTC Health Program for of WTC responders and survivors and Pentagon and Shanksville responders and follows statutory and regulatory requirements and approved process and procedures to enroll members into the WTC Health Program; (5) processes certification of member's WTC-related health conditions eligible for treatment coverage in the WTC Health Program and follows statutory and regulatory requirements and approved processes and procedures to issue certification decisions on behalf of the Administrator of the WTC Health Program; (6) develops medical and pharmacy benefit coverage determinations and issues coverage decisions on prior authorization requests for medical services, durable medical equipment, supplies, and pharmaceuticals; (7) coordinates working groups, such as the Pharmaceutical and Therapeutics Working Group, with stakeholder clinicians for continuing education and alignment with program formulary changes; (8) provides oversight and expertise to Clinical Centers of Excellence and Nationwide Provider Network on case management, care coordination, and utilization management; (9) designs and manages the medical diagnosis and procedural services codebook, which supports benefit access for covered conditions and approved services with utilization limitations; (10) supports members through customer support and by coordinating and managing call centers, issues written member correspondence, and supports member transfers; (11) coordinates, on behalf of the Administrator of the WTC Health Program, certification, enrollment, and treatment appeals following statutory and regulatory requirements and approved processes and procedures; (12) serves as subject matter experts for vendors, particularly for outreach and education vendors on program eligibility and available services; and (13) works with vendors, primarily the Health Program Support/Third Party Administrator vendor and the Centers for Medicare & Medicaid Services (CMS), to ensure providers receive appropriate reimbursement for initial health evaluations, annual medical monitoring, cancer screening, diagnostic services, and treatment of covered health conditions. (Approved 3/4/2024)

Research and Evaluation Branch (CCPC)

The Research and Evaluation Branch establishes and manages a research agenda and research translation program to increase understanding of 9/11 health effects as well as to improve WTC Health Program member health and well-being. Specifically, the branch: (1) Establishes an evaluation program for quality management and program integrity and improvement; (2) establishes a research agenda to address existing knowledge gaps, investigate the emergence of health conditions linked to 9/11 exposures, and build upon current knowledge for research translation; (3) designs the competitive funding opportunity announcements in coordination with the NIOSH Office of Extramural Programs; (4) establishes a process to obtain insight from community members, patients, and other stakeholders that helps shape the evolving research

agenda over time; (5) conducts reviews - through assessing and integrating data sources - to identify research gaps, using the Program's logic model on research translation; (6) reviews and assesses information on potential emerging conditions that should be further evaluated and utilizes research solicitations in doing so; (7) conducts scientific reviews of the literature to determine if new health conditions, including those petitioned by interested parties, should be recommended to the Administrator of the WTC Health Program for addition to the List of WTC-Related Health Conditions; (8) ensures that the WTC database of research publications is maintained and current; (9) aids in administering the statutorily-established WTC Health Program Scientific/Technical Advisory Committee; (10) supports, develops, and implements research products, such as research seminars, science blogs, and a research summary database, to disseminate information about research findings and assist in the translation of those findings to the member healthcare component of the Program; (11) ensures uniform data collection and scientific data integration; supports collaboration between the Data Centers and the WTC Health Registry; and oversees the transfer of member data from the Nationwide Provider Network to the cohort-specific Data Center(s) for inclusion in health surveillance analyses and program-funded research; (12) coordinates and evaluates administrative quality control and enterprise risk management for the WTC Health Program; (13) implements the WTC Health Program's approved processes and procedures to identify and address fraud, waste, and abuse; (14) provides subject matter expertise for administrative and clinical quality metrics for the Clinical Centers of Excellence, the Nationwide Provider Network, and the Pharmacy Benefit Manager contract statements of work; (15) ensures the 9/11 exposure-based WTC Health Registry is maintained in accordance with statutory requirements and that appropriate analysis plans are implemented; and (16) provides subject matter expertise for the WTC Health Program annual report to Congress and government audits of the WTC Health Program. (Approved 3/4/2024)

Business Operations Branch (CCPD)

The Business Operations Branch leads strategic acquisition planning as well as the development and dissemination of technical documentation to support the division. Specifically, the branch: (1) Improves the WTC Health Program's efficiency through process improvement and solution development and workforce management and development; (2) oversees training, project management, and travel; (3) develops and oversees acquisition and procurement strategy, the acquisition plan and performance work statements for contract awards—for the Clinical Centers of Excellence, Data Centers, Nationwide Provider Network, Pharmacy Benefit Manager, Health Program Support/Third Party Administrator, and for other support contracts—to carry out the mission of the WTC Health Program in coordination with the CDC Office of Acquisitions; (4) manages the reimbursement of the Clinical Centers of Excellence and the Nationwide Provider Network for infrastructure costs, the Data Centers, Pharmacy Benefit Manager, Health Program Support/Third Party Administrator, and other support contracts; (5) implements agreement with New York City for purposes of collecting 10% of specified Program expenses, in accordance with the authorizing legislation; (6) administers and/or collects recoupments from private insurance and workers compensation; (7) enters into agreement(s) with CMS for provider reimbursements; (8) ensures all requirements pursuant to the Health Information Portability and Accountability Act (HIPAA) and implementing regulations are followed and coordinates

implementation of approved processes and procedures to ensure member information is securely transmitted and used in alignment with both HIPAA and the Privacy Act; (9) ensures compliance with all records management requirements and that WTC Health Program data and records are maintained in alignment with agency and National Archives and Records Administration requirements; and (10) provides expertise to the division on process improvement and use of technology and business solutions to meet the division's missions. (Approved 3/4/2024)

Western States Division (CCQ)

The Western States Division (WSD) conducts research and provides technical assistance for the prevention of work-related illness, injury, and death; these activities are predominately focused on, but not limited to, occupational safety and health (OS&H) problems in the Western U.S., including Alaska and Hawaii. WSD conducts specific activities that provide actionable evidence to reduce OS&H hazards. To accomplish its mission, WSD: (1) Conducts prevention research for at risk populations; (2) facilitates the development of OS&H programs in states and regions that have minimal or limited OS&H public health program capacity and state-supporting infrastructure; (3) serves as a multi-regional resource to provide outreach, expert advice, and technical assistance on OS&H priority issues, including the development, dissemination, and diffusion of NIOSH research products; (4) enhances and facilitates NIOSH initiatives and programs; and (5) responds to requests for technical assistance and conducts site evaluations to support Division programs and priorities and other NIOSH initiatives and programs, including evaluating exposures to hazardous chemical, biological, physical, and radioactive agents and recommending appropriate controls. Research includes the development of viable strategies to evaluate and prioritize hazards, communicate risk, provide evidence for prevention recommendations, and building state OS&H (capacity or activities) through surveillance data and stakeholder input. At risk populations include, but are not limited to, (a) high-risk industries such as oil and gas extraction, fishing, and aviation; (b) underserved groups such as American Indian/Alaska Native and immigrant and contingent workers; and (c) workers engaged in particularly hazardous activities such as hydraulic fracturing, wind and other renewable energy development, wild land firefighting; and water and air transportation. (Approved 3/6/2015)

Pittsburgh Mining Research Division (CCR)

Provides leadership and guidance for the prevention of work-related illness, injury, and fatalities of mine workers through research and prevention activities of the Pittsburgh Mining Research Division (PMRD) through three (3) subordinate Branches. Specifically PMRD: (1) Conducts field studies to identify emerging hazards, to understand the underlying causes of mine safety and health problems, and to evaluate the effectiveness of interventions; (2) develops engineering and behavioral-based interventions, including training programs, to improve safety and health in the mines; (3) performs research, development, and testing of new technologies, equipment, and practices to enhance mine safety and health; (4) develops best practices guidance for interventions; (5) transfers mining research and prevention products into practice; and (6) collaborates with the Spokane Mining Research Division and other NIOSH divisions engaged in research and prevention activities relevant to mine worker health and safety. (Approved 4/29/2020; Effective 5/14/2020)

Health Hazards Prevention Branch (CCRJ)

The Health Hazards Prevention Branch (HHPB) function is to reduce illnesses and injuries to mine workers through assessment and control of respiratory and physical hazards. Specifically the branch: (1) Assesses mine worker exposure to respiratory hazards, through a comprehensive characterization of the exposures and the evaluation and development of monitoring methods and technologies; (2) conducts research on and evaluates the performance and technical feasibility of engineering control strategies, novel approaches, and the application of new or emerging technologies for underground and surface mine dust and respiratory hazard control systems; (3) conducts research related to occupational hearing loss in the mining sector, including causative effects, noise controls, hearing protection devices and impulse noise; (4) demonstrates and evaluates the technical and economic feasibility of noise reduction controls; (5) conducts research related to ergonomic hazards including developing engineering controls in the laboratory and evaluating their effectiveness in the workplace to prevent workplace musculoskeletal disorders, slips-trips-falls accidents, and materials handling injuries; and (6) conducts research related to the assessment and control of diesel particulate matter (DPM) in both surface and underground mines. (Approved 4/29/2020; Effective 5/14/2020)

Mining Systems Safety Branch (CCRK)

The Mining Systems Safety Branch (MSSB) function is to reduce accidents and injuries arising from changing geological conditions and mine system technologies and to prevent mine explosions, mine fires, and gas and water inundations, particularly in underground coal mines. The branch: (1) Conducts experiments through laboratory and field investigations to prevent catastrophic events such as cataclysmic structural or ground failures, mine explosions, mine fires, and gas and water inundations to better understand cause and effect relationships that initiate such events; (2) utilizes monitoring and advanced numerical modeling techniques to better understand and visualize ground behavior and support response, leading to improved design criteria for mine layouts and support design to mitigate ground control failures; (3) develops, tests, and demonstrates sensors, predictive models, and engineering control technologies to reduce miners risk for injury or death; (4) conducts laboratory and field research on communication systems, tracking systems, lighting systems, sensor technologies, refuge alternatives, and monitoring systems to ensure their viability and safety during routine mining operations as well as post-disaster conditions; (5) assesses and develops new or improved strategies and technologies to reduce the risks associated with fires and explosions in mining operations to mitigate the impact of mine disasters; (6) assesses methodologies and designs to enhance and improve underground mine ventilation system design and application to prevent disasters and ensure safe and healthy conditions for underground miners; and (7) identifies and evaluates emerging health and safety issues as mining operations move into more challenging and dangerous geologic conditions. (Approved 4/29/2020; Effective 5/14/2020)

Human Systems Integration Branch (CCRL)

The Human Systems Integration Branch (HSIB) function is to reduce fatalities and injuries through interventions and engineering controls solutions developed through a human systems integration framework. The branch: (1) Conducts research with an overarching focus on the human component in the mining workplace system and in the mine emergency response system; (2) conducts human factors research related to worker perceptions, judgment and decision-making, hazard recognition, and human behavior; (3) provides effective training and work place organization techniques and strategies for mining; (4) conducts intervention and evaluation effectiveness research for integration and use of technologies and interventions including engineering controls, organizational administrative and process changes and individual leadership and worker practices in mining; (5) systematically studies risk at the intersections of technical, human and environmental elements which occur at the levels of the individual, tasks, tools and technology, physical environment and organizational process and design in order to improve risk management systems; and (6) conducts research on effective training methods that develops organization techniques and strategies to promote a positive safety culture in mining. (Approved 4/29/2020; Effective 5/14/2020)

Spokane Mining Research Division (CCS)

Provides leadership and guidance in the prevention of work-related illness, injury, and fatalities in the mining industries through research and prevention activities of the Spokane Mining Research Division (SMRD), with an emphasis on the special needs of the surface and underground mines in the western United States. Specifically, SMRD does this by: (1) Developing numerical models and conducting laboratory and field research and investigations to better understand the causes of catastrophic failures that may lead to multiple injuries and fatalities; (2) developing new design practices and tools, control technologies, and work practices to reduce the risk of global and local ground failures in mines; (3) assessing and mitigating risks associated with emerging technologies such as automated mining equipment and new sensor technologies, and through researching, identifying or developing new technologies that have potential benefits to mining health and safety; (4) developing improved design approaches, monitoring devices, and engineering controls to reduce the concentration of toxic substances in the mine air; (5) developing and promoting health and safety strategies through research that protect mine workers from occupational hazards and advance life-time worker well-being through the implementation of a miner health program; (6) conducting laboratory and field studies to leverage and support the Institute's mining research program; and (7) collaborates with the Pittsburgh Mining Research Division and other NIOSH divisions engaged in research and prevention activities relevant to mine worker health and safety. (Approved 4/29/2020; Effective 5/14/2020)

Miner Safety Branch (CCSB)

The Miner Safety Branch (MSB) function is to identify and eliminate safety issues arising from changing mine conditions and technologies. State-of-the-art technologies are used to conduct fundamental and applied research aimed at eliminating injuries and fatalities in mining with a

particular focus on geomechanical instabilities, localized ground falls, machine safety, and worker interaction with automated systems and other emerging technologies. Researchers specialized in the fields of geology, geophysics, seismology, electronic instrumentation, numerical modeling, geotechnical engineering, safety engineering, data science, and mining engineering utilize state-of-the-art, emerging, and novel technologies to identify and solve mine safety challenges. The branch: (1) Develops, implements, and improves geophysical methods, geotechnical instrumentation, and laboratory techniques through applied research to quantify rock mass properties and characterize mining-induced ground response; (2) utilizes advanced numerical modeling techniques to better understand and visualize ground behavior and support response; (3) identifies new technologies to monitor and improve ground support; (4) conducts research through laboratory and field assessments of the performance of engineered support systems to provide quantifiable design criteria; (5) develops recommendations for the design of equipment and techniques to reduce risks associated with the installation of ground support; (6) utilizes experimental and empirical methods developed through research to quantify the reliability of alternative mining methods and design practices; (7) applies advanced informatics, data analyses, and visualization techniques to automated and semi-automated mining systems to provide increased situational awareness for mine workers; (8) assesses, develops and deploys research-based mine-wide seismic systems for quantifying and evaluating seismic hazards and mitigation strategies for underground and surface mines; and (9) addresses health and safety issues that may develop after the introduction of automated mining systems and other emerging technologies in mining. (Approved 4/29/2020; Effective 5/14/2020)

Miner Health Branch (CCSC)

The Miner Health Branch function is to assess and track miner health and hazard exposures; and develop and promote health solutions that maximize worker protection, minimize exposures and prevent disease, while improving functional health for the entire mining population. Research is pursued through an interdisciplinary approach involving the fields of epidemiology, industrial hygiene, occupational medicine, organizational psychology, chemistry, as well as mechanical, electrical, and industrial engineering. The branch: (1) Incorporates novel and relevant health surveillance methods for the systematic assessment of health and exposure potential of the miner as it pertains to dynamic mining environments; (2) conducts research on the identification and prioritization of adverse health outcomes and exposures, and their associated risk factors; (3) quantitatively and qualitatively measures risk through research, experimental, and real-world data collection; (4) conducts research on the development and evaluation of workplace practices and technologies aimed at preventing injury and illness that improve long-term functionality for all miners and benefit employers, families, and communities; (5) develops technologies and methods to monitor and eliminate exposures; and (6) engages and collaborates across NIOSH and with industry to effectively communicate tangible health solutions and control strategies. (Approved 4/29/2020; Effective 5/14/2020)