NIOSH Center for Direct Reading and Sensor Technologies

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To further increase its capabilities and partnerships to develop, validate and apply new technologies to address relevant occupational and environmental exposures, the National Institute for Occupational Safety and Health has established a virtual NIOSH Center for Direct Reading and Sensor Technologies. The new center will serve as a home for NIOSH's longstanding work in the area of exposure assessment devices—work that is done across the Institute. The Center has identified key strategic goals to better understand and control occupationally relevant hazards, exposures to those hazards, and potential resulting health effects. Initial activities are being directed to 1) coordinating a national research agenda for direct reading and sensor technologies, 2) developing guidance documents pertinent to direct reading methods and sensors such as validation and performance characteristics, 3) development of training protocols and 4) establishing partnerships to collaborate in the Center's activities. These activities recognize and will capitalize on the fact that sensors are being used more frequently in many different settings from research to clinical practice. These activities also align with conclusions of the recent National Research Council report on Exposure Sciences for the 21st Century which identified direct reading methods and monitors as being an important driver for the future of exposure sciences. Major questions include: Do these methods accurately measure what they are supposed to be measuring? How can they be adequately calibrated and validated? When are they limited to use for screening and when can they provide an accurate characterization of specific hazards? And, finally, given the large amounts of data that may be collected from such technologies, how can those data be feasibly analyzed and interpreted? NIOSH welcomes partnerships and collaboration to ensure that sensors will be one of the technologies that can move exposure sciences forward at a rapid pace. Additional information about the center can be found at www.cdc.gov/niosh/topics/drst/.