

Attachment D  
Consent form

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)  
CENTERS FOR DISEASE CONTROL AND PREVENTION  
U.S. PUBLIC HEALTH SERVICE  
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

CONSENT TO PARTICIPATE IN A VIRTUAL REALITY TRAINING EVALUATION STUDY

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You have been asked to participate in a NIOSH research study. We explain here the nature of your participation, describe your rights, and specify how NIOSH will treat your records.  
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I. DESCRIPTION

1. Title: Virtual Reality to Training and Assess Emergency Responders; Mine Rescue and Escape Training
2. Sponsor and/or Project Officer: Launa Mallett, Ph.D.
3. Purpose and Benefits: The purpose of this research is to improve mine safety and health training by studying new methods and technologies. The results will be provided to the mining industry so better training can be provided, resulting in safer mines. As a participant in this study, you will experience state-of-the-art virtual reality training and play an important role in improving future training for you and your co-workers.

II. CONDITIONS OF THE STUDY

1. During this study, you will participate in one mine safety and health training session presented using virtual reality technologies. The content of the training is similar to that presented in your regular mandated mine safety and health or mine rescue training classes. As part of training, you may experience simulated immersive virtual environments created by 3D stereoscopic projection systems. Before and after the training, you will be asked to complete evaluation forms to assess your opinion of the session and what you learned from it. These forms will take no more than 15 minutes to complete. Individual escape and rescue training module sessions will take 3 to 4 hours to complete. Bench training sessions take approximately 1 hour. Training sessions will also be observed by NIOSH researchers and/or trainers and your interactions with the computer generated environment will be recorded. Your name or other personal identifiable information will not be collected. Research activities will take place in training classrooms/laboratories either in the Mine Rescue and Escape Training (MRET) Laboratory on the Bruceton Research site near Pittsburgh, PA or in usual training surface locations at mine sites or academic institutions. No photography, video, or sound recording will be taken.
2. Some study participants may experience symptoms similar to motion sickness when in a virtual environment or observing stereoscopic images. Symptoms could include: headache, drowsiness, nausea, dizziness, vomiting or sweating. If this should occur, inform a NIOSH employee conducting the testing immediately and you will be assisted to leave the virtual environment. The symptoms are likely to be mild and of short duration.

If you have any comment about the tests/procedures, you should contact Launa Mallett, Ph.D., Training Research and Development Team Leader, 412-386-6658.

3. There are no alternative test procedures for this research.
4. Injury or harm from this project is unlikely. But if it results, medical care is not provided, other than emergency treatment. If you are injured through negligence of a NIOSH employee you

may be able to obtain compensation under Federal Law. If you want to file a claim against the Federal government your contact point is: General Law Division of OGC, request the Claims Office: (202) 233-0233. If you are injured or harmed through the negligence of a NIOSH contractor, your claim would be against the contractor, not the federal government. If an injury or harm should occur to you as the result of your participation, you also should contact: Launa Mallett, Ph.D., Training Research and Development Team Leader, 412-386-6658 or Mark A. Toraason, Chair NIOSH HSRB, 513-533-8591.

5. If you have questions about this research, contact Launa Mallett, Ph.D., Training Research and Development Team Leader, 412-386-6658. If you have questions about your rights as a member of this study, contact Mark A. Toraason, Chair, NIOSH Human Subjects Review Board, 513-533-8591.

6. Your participation is voluntary and you may withdraw your consent and your participation in this study at any time without penalty or loss of benefits to which you are otherwise entitled.

You will not be paid in cash or in-kind by NIOSH for your participation. You may be eligible for credit for required training hours at the discretion of your employer and under their formal plan.

7. NIOSH will publish analyses of collated data from this research project in public documents. For questions related to obtaining these results, contact Launa Mallett, Ph.D., Training Research and Development Team Leader, 412-386-6658.

### III. USE OF INFORMATION

This study is being done by The National Institute for Occupational Safety and Health (NIOSH). NIOSH is part of the Centers for Disease Control and Prevention (CDC), a government agency in the Department of Health and Human Services. We collect this information in order to learn about various kinds of work hazards that may influence the health of the American worker.

We will be asking several questions that are generally related to demographics, your mine emergency experience and knowledge, and your reactions to different aspects of the training simulation.

No individually identifiable information is being collected or maintained. Access to the data will be restricted to researchers directly involved with the study and who need to view the data.

IV. SIGNATURES

I have read this consent form and received a copy of the conditions for data release under the Privacy Act (Appendix A). I agree to participate in this study.

PARTICIPANT \_\_\_\_\_ Date \_\_\_\_\_  
(signature) \_\_\_\_\_

I, the NIOSH representative, have accurately described this study to the participant.

REPRESENTATIVE \_\_\_\_\_ Date \_\_\_\_\_  
(signature) \_\_\_\_\_