**Appendix D**

**Evaluation of an Immersive “VR Mine” Rescue Team Simulation Exercise Simulation Exercise Observation Form**

# “VR Mine” Mine Rescue Contest Exercise: Observation Guide and Data Form

The purpose of this observation guide is to inform you of your responsibilities as an observer and guide you through the process of recording observable behavior for consideration and integration in the evaluation of the VR Mine rescue contest exercise.

Overall, your responsibilities are to unobtrusively record significant and/or unique observational data that emerges during the training exercise. Observational data can emerge as a result of informal conversations, unplanned activities, interactions, etc. It is important to provide a description of your observations without inferring meaning. This guide will walk you through the process of collecting this data.

It is important to record any significant stoppage in the exercise, other anomalies and surrounding circumstances.

Before the simulation begins, please record the following:

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| Team ID: Observer  |
| Dungeon Master: VR Tech: Equipment Tech: VIP Tech Spectator Tech Debrief Tech Observer Interviewer Other Other Other  |  | If the members of the rescue team are mostly associated with a specific mine/commodity, please specify:* Underground Coal
* Underground Metal
* Underground Nonmetal
* Underground Stone
* Other/NA (please specify):
 |
|  |

During the simulation watch for and record the following types of things and record:

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| Technological Issues (e.g., Interaction device difficulty/ease of use. Were there any glitches in the software/hardware/interaction devices? Did these glitches affect the team’s performance, and if so, in what ways? |
|  |
| Participant Orientation (e.g., awareness, knowing where they are in the mine) |
|  |
| Communication with MSHA/NIOSH staff (e.g., What clarifying questions were asked during the simulation? Any notable comments made to staff, etc.) |

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| Communication among rescue team participants (e.g., key decision points, overall impressions) |
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| Engagement (e.g., Do all team members appear to be actively involved in the exercise?) |

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| Other (e.g., anomalies, anything noteworthy) |
|  |

# Appendix E