Guide and Guide Training Standard

Table of Contents

Revision History

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	4/18/2023	NA	NA	Initial Release	CCR 723
02	10/4/2023	5.1 & 6.3	NA	Changed facility access document title	**CCR 824**

1.0 Purpose

For the purpose of guiding and training personnel at Sanford Underground Research Facility (SURF), South Dakota Science and Technology Authority (SDSTA) establishes requirements of a guide and the requirements for select individuals to become a guide or guide trainer.

2.0 Scope

This standard applies to guides and guide trainers at SURF.

3.0 Definitions

Direct Observation – The act of monitoring personnel and activities while in the immediate area or within visual and/or audible range of personnel.

Established Lab Area – A designated location developed to support an experiment.

Guide – An individual who meets the qualifications outlined in this standard designated to provide direct observation of the personnel being guided. Both SDSTA and non-SDSTA personnel can be guides.

Guide Ratio – The required number of guides per number of guided personnel. Guides do not count toward the number of guided personnel.

Guide Trainer – An individual who meets the qualifications outlined in this standard to provide guide training. Both SDSTA and non-SDSTA personnel can be guide trainers.

Guide Train-the-Trainer Instructor – An SDSTA guide who is responsible for the training and certification of guide trainers.

Lead Guide – A person that assumes leadership in the event of an emergency or an evacuation. In areas where multiple guides exist, the lead guide will assume overall responsibility for the entire group in the event of an emergency.

Sit-In – The process of physically attending a class or observation of an on-the-job training session.

Sufficient Experience – Adequate awareness and exposure to facility practices and operations that allows for a comprehensive understanding of hazards and risks associated with designated areas or tasks.

Teach-Back – A demonstrative process of teaching newly acquired skills and techniques to the instructor in order to validate the level of understanding and the ability to propagate a consistent message.

Train-the-Trainer – A method that allows for the training and certification of personnel to become instructors.

Trained Worker – Personnel who have been trained in the hazards for specific areas, including a walk-through for familiarization of emergency requirements.

Trip Action Plan (TAP) – A documented and pre-planned event that is updated throughout the day to reflect any changes to approve individuals or groups to access facility areas.

Visitor – A person who has an appointment with a designated point of contact (Sponsor) at SURF and who requires temporary access to site facilities.

4.0 Responsibilities

4.1. SDSTA Executive Director

    4.1.1. Ensures accountability with the requirements of this standard with direct reports.

4.2. Department Directors

    4.2.1. Recommend candidate(s) in writing to the Environment, Safety and Health (ESH) Director for guide training.

    4.2.2. Recommend candidate(s) in writing to the ESH Director to become a guide trainer.

    4.2.3. Ensure guide personnel under their supervision meet all training requirements.

    4.2.4. Ensure all training documents have been submitted to the ESH Department.

4.3. ESH Director

    4.3.1. Approves individuals to serve as guides or guide trainers.

    4.3.2. Receives written recommendations regarding candidates for guide or guide trainer.

4.4. Project Manager

    4.4.1. Ensures a guide who is certified for the specific area is assigned.

    4.4.2. Recommends to the ESH Director qualified project candidate(s) to become a guide or guide trainer, when required.

    4.4.3. Validates that the proposed guide or guide trainer meets the prerequisites, as stated below.

    4.4.4. Schedules training for proposed guide or guide trainer with the ESH Department.

    4.4.5. Ensures guide personnel under their project meet all guide refresher training requirements.

4.5. Sponsor

    4.5.1. Ensures a guide who is certified for the specific area is assigned.

4.6. Laboratory Coordinator

    4.6.1. Coordinates with guides as required.

    4.6.2. Assumes a safety leadership role in the event of emergency or evacuation.

    4.6.3. Maintains training logs.

4.7. Lead Guide

    4.7.1. Assumes responsibility and coordination for all personnel, including other guides, in the event of an emergency.

4.8. Guide

4.8.1. Ensures compliance with this standard.
4.8.2. Coordinates with responsible personnel to gain access into areas requiring approval.
4.8.3. Establish a lead guide when multiple guides are present.

4.9. Guide Trainer

4.9.1. Meets the work experience timeframe and prerequisites listed in Section 5.
4.9.2. Demonstrates the necessary competency to effectively provide a high level of training to others.
4.9.3. Manages the guide trainer matrix to document completed training for guide candidates.
4.9.4. Coordinates training trips with area supervisors.
4.9.5. Submits ESH-(12000-F)-204636 Guide Certification Form to the ESH Director.

- Any non-SDSTA guide trainer shall submit equivalent documentation to the ESH Department.

4.10. Guide Train-the-Trainer Instructor

4.10.1. Possesses and maintains guide trainer status.
4.10.2. Possesses and maintains the Guide Certification Form.

5.0 Instructions

Guide certifications are specific to a geographical area. Guide requirements may vary within a given geographical area based on specific parameters, e.g., established lab area may require additional training requirements. Guides have many duties, the primary of which is ensuring the safety and health of their guided personnel. The guide also provides direct observation of the guided personnel.

5.1. General Guide Requirements:

- All guides are required to:

    o Maintain proficiency in certified areas.

    o Meet ESH-(1000-S)-73189 Facility Access Standard requirements.

    o Obtain Permits required for restricted areas.

    o Successfully complete all guide training requirements in the learning management system (LMS).

    o Ensure compliance with all applicable SDSTA documents.

    o Follow guide requirements per ESH-(6000-S)-185207 Emergency Management Standard.

    o Ensure the safety oversight of the guided personnel.

    o Initiate emergency communications and lead workers to safety.

    o Confirm a TAP has been developed and approved for all applicable locations.

    o Carry a copy of the TAP that is accessible without a connection to a wireless network.

    o Confirm Acknowledgment of Risk and Release Agreement Not to Sue and Waiver and required training has been completed by all guided personnel.

    o Be familiar with hazards and work activities associated in specific areas to which the group is guided.

o Arrange transportation as necessary (i.e., motors, vans, special cages, etc.).

o Confirm proper Personal Protective Equipment (PPE) is issued and properly worn throughout the trip.

o Ensure all personnel properly follow the brass-in/brass-out procedures.

o Assist with cleanliness measures (i.e., boots are cleaned, PPE returned, etc.).

o Coordinate with responsible personnel to gain access into areas requiring approval.

o Communicate logistics with facility personnel.

o Review hazards, risks, and controls with guided personnel.

o Carry a portable gas tester to monitor the atmosphere while underground.

♦ At least one real-time portable monitor is to be provided for each underground group with the capacity to monitor oxygen levels and any other substance that can significantly impact safety and health. Each monitor should be equipped with an alarm for each substance to alert personnel when a retreat to fresh air is warranted.

o Coordinate activities with other guides/lab coordinator.

♦ Establish a lead guide as required.

5.2. Guide Ratios

To manage any hazards or risks associated with a specific geographical area. Guide ratios are as follows:

- Underground:
  o Non-permit restricted areas:
    ♦ 1 Guide to 12 individuals.
  o Permit restricted areas:
    ♦ 1 Guide to 6 individuals.
  o Shaft conveyances:
    ♦ Technicians are designated lead guides and are not subject to ratios.
  o During an emergency, the ratio may increase.

- Surface:
  o There is not a specified guide ratio for surface locations.
  o Personnel who are not considered trained workers, must be accompanied by a trained worker. This includes but is not limited to the following:
    ♦ Visitors
    ♦ Tour groups
    ♦ New hires

5.3. Guide Trainer - Eligibility Requirements

- For a candidate to be recommended for guide trainer status, they must meet certain requirements that ensure they fully understand the knowledge of hazards and risks associated with in the areas they will train guides. Additionally, they must meet the requirements of the train-the-trainer program, demonstrating that they are capable of teaching and passing this information on to others.

- Prerequisites for guide trainer:

  o Certified as a guide.

  o Current in all the guide refresher training requirements.

  o Six months of sufficient experience on-site in designated area(s) or other documented experience in the following areas from working at other underground sites. Competence is required in the following:

    ♦ Gas testers.

    ♦ Underground ventilation.

    ♦ Ground awareness and assessments.

    ♦ Emergency egress routes.

    ♦ Communications for emergency responses.

    ♦ Fall protection and prevention.

    ♦ Lock Out Tag Out.

    ♦ Comprehensive knowledge of hazards and risks associated with the:

      ◊ Underground environment.

      ◊ Geographical site areas for which Guide status applies.

  o Certified in First Aid/CPR/AED.

  o Understands and follow the ESH Manual.

- Prerequisites in lieu of 6-months of sufficient on-site work experience:

  o Onsite experience can be waived if the individual has met the above prerequisites. A letter of verification must be submitted in writing to the ESH Department Director providing proof of sufficient experience.

- Written verification of the guide trainer prerequisites.

  o A candidate is selected for guide trainer based on sufficient on-site experience or having met the prerequisites.

  o A letter is submitted to the ESH Department Director providing proof of this experience.

  o The SDSTA ESH Department will propose training dates.

  o The SDSTA ESH Department completes the training and provides documentation that training is complete.

5.4. Guide Trainer – Demonstration of Competency

- This training will be performed by a train-the-trainer instructor in the designated area, multiple trips may be necessary. Guide trainers are required to accomplish the following in order to demonstrate competency:

  o Candidate must complete a sit-in, followed by a demonstrated teach-back to the Train-the-Trainer Instructor.

  o After successfully completing the requirements on the training matrix, the candidate is considered qualified to teach those tasks.

  o The SDSTA train-the-trainer instructor has final determination before certification is granted.

5.5. Training for Guide and Guide Trainer

- Requirements for training must be completed by each guide or guide trainer. These requirements include:

  o Any refresher training for any of the above areas where the guide or guide trainer is currently certified.

  o Learning Management System training.

  o A review of the area or level with a guide trainer if there has been a significant change to the area.

  o Travel of the emergency escape route(s) one time every 6 months. A current guide trainer does not need to accompany the guide for this unless deemed necessary.

    ♦ If exceeding the time requirements, the guide or guide trainer must accomplish a review of the area with a guide trainer that is current in the specified area.

5.6. Training Records

- All completed training records shall be submitted by the guide trainer or train-the-trainer instructor to the SDSTA ESH Department.

6.0 Documented Information/Related Document

6.1. ESH-(6000-S)-185207 Emergency Management Standard
6.2. ESH-(12000-F)-204636 Guide Certification Form
6.3. ESH-(1000-S)-73189 Facility Access Standard