- b. Directing an IDLH atmosphere over survivor(s) through a change in ventilation
- c. In the case of multiple survivors, leaving the higher priority patient and taking a less injured patient out
- d. Improperly protecting survivor(s) from an IDLH atmosphere
- e. Continuing exploration beyond a miner (potential survivor) who is clearly visible to the team and located under unsafe roof after an adequate supply of roof support materials have become available for his/her safe recovery (applies to similar areas as shown in Figure 4 through Figure 6 under the "Roof or Ground Control" section).
- f. Continuing exploration beyond a miner (survivor) who has made verbal contact with the team but is located in an isolated/barricaded area when a means to safely evacuate the miner has been found.
- g. When a team finds a patient(s), either by visual or verbal contact, every effort must be made to remove them safely and promptly to the fresh-air base. Visual contact will require the captain's presence in the area. Verbal contact is any voice communication from the patient(s) that can reasonably be expected to be heard by the team. Maximum of one (1) live person may be found in each refuge alternative.
- h. When a team reaches a patient(s) (visual contact), every effort must be made to remove them safely and promptly to the fresh-air base. Exploring ahead of the location will be limited to the stopping point of the tail captain. The stopping point of the tail captain will be determined from the stopping point at or outby the patient(s). Once a team reaches a patient(s), (visual contact), the team may perform any function during this team stop; however, teams will not be allowed to build ventilation controls, timber unsafe roof or pump water unless necessary to recover the patient(s). The team may not continue to explore while exiting with the patient, unless required by the problem design. Once the team starts to exit the mine with a patient(s) the team must continue directly to the fresh air base or surface before retrieving other patient(s).
- i. If the team is in verbal or visual contact with a patient, and the team is unable to immediately reach the patient due to the conditions of the mine, the team may continue to explore if necessary for its own or the patient's safety. During this exploration process, the team may perform any function during team stops. Every patient shall be safely and promptly removed from the mine as soon as means and/ or materials are available.
 - 1. If a team finds a patient(s) under or inby an area of unsafe roof and has the necessary roof support available to recover the patient(s), the team must stop and recover the patient. If a team subsequently finds necessary roof support to recover the patient(s), the team must stop (prior to the No. 5 team member passing the roof support), retrieve the roof support and recover the patient(s). The team may perform any function during this team stop; however, teams will not be allowed to build ventilation controls, timber unsafe roof or pump water unless necessary to recover the patient(s).
 - 2. If a team finds a patient(s) inby an area of water over knee deep and has a pump available to pump the water, the team must stop and recover the patient. If a team subsequently finds a pump, the team must stop (prior to the No. 5 team member passing the pump), retrieve the pump, pump the water, and recover the patient(s). The team may perform any function during this team stop; however, teams will not be allowed to build ventilation controls, timber unsafe roof or pump water unless necessary to recover the patient(s). Exploration may continue, if necessary, to ventilate an explosive mixture prior to energizing the pump.

MINE RESCUE DISCOUNTS AND INTERPRETATIONS **Underground Discount Sheet** Judge #1

| | Dis |
|--|------|
| 1. Breathing external air while working the problem inby the | |
| fresh air base, each team member, each infraction | 15 x |
| 2. Team not following proper procedure in case of | |

- apparatus failure, each infraction 3. Failure of team to stop within 50 feet of the fresh air base or at the shaft station to perform personnel and apparatus checks, upon their first entry into the mine
- 4. Team member(s) not making apparatus check after removing apparatus to traverse restricted clearance or after apparatus has sustained damage from impact (each person, each incident)
- 5. Apparatus examination exceeding 20-minute intervals
- 6. Failure to use posted hoisting signals, each infraction
- 7. Failure to close shaft station gate
- 8. a. Failure of the captain to indicate to the team he/she has recognized bad ground.
 - b. Failure of the captain to verbally indicate he/she is checking the back or roof:
 - 1. at intersections, shaft stations, rooms, faces, and mine openings;
 - 2. at all points of farthest advance:
 - 3. before building or erecting any structure;
 - 4. upon passing through any barricade, stopping, bulkhead, air lock, door, check curtain, or similar barrier;
 - 5. at the location of fire or intense heat.
 - c. Any team member performing work or moving into any part of an area during a team stop before the captain has visually checked the ground conditions in that part, each infraction
- 5 x = 9. Failure of the captain to mark the date and his/her initials at the point of farthest advance of the team in any direction such as at stoppings, faces of rooms and drifts, water over knee deep, impassable falls, barricades, fires out of control, and at the location of any live persons or bodies, each omission (maximum 10 discounts)
- 10. Captain or other team member doing anything to endanger himself/herself or other team members, 15 points each team member so endangered, each infraction, each occurrence
- 11. Failure of team to explore or examine workings systematically and thoroughly, each infraction
- 12. Teams must be checked immediately before entering smoke
- 13. Failure to locate, seal, or extinguish fire, if possible, without undue delay
- 14. Failure to notify the fresh air base when an air/gas mixture has reached its explosive range
- 15. Failure to bring live person to surface or fresh air base by the end of the problem, each omission
- 16. Failure to locate bodies and/or live persons, each omission
- 17. Transporting survivor in unexplored territory, leaving survivor unattended, and moving survivor in any direction except toward the fresh air base, each infraction
- 18. The team performing an act that may result in the death or injury of survivor(s), each infraction

10 x =

4 (total)

- 2 x = (10 max.) 15 x =
- 25 x ____ = ___ 50 x = 10 x = 50 x ____ = ____ 50 x ___ = 6 x = 50 x =

Notes

MINE RESCUE DISCOUNTS AND INTERPRETATIONS Underground Interpretation – Judge #1

- 1. Working all or part of problem without a facepiece or working with inhalation hose disconnected.
- 2. Proper procedure would depend on type of apparatus; however, team must proceed to fresh air base immediately.
- 3. This check must be made at the first stop, with all team members past the portal or off the cage (this does not apply to checking mine entrances prior to working the problem); before the captain exceeds 50 feet from portal or cage.
- 4. This apparatus check must be made as soon as all team members have passed through the restricted area and before any other work is done. Additionally, this apparatus check must be made immediately after any apparatus has sustained a blow which causes damage to it. Not to be assessed for minor incidental contacts.
- 5. Self-explanatory.
- 6. Hoist shaft signals will be posted at shaft stations and will be used to notify the hoistman of intended movement and cage release.
- 7. Self-explanatory.
- 8. a. Must so indicate before any other team member passes the placard. This applies each time such a placard is reached; when retreating, the rear captain must do this.
 - b. 1. Must be so indicated before physically entering the area.
 - 2. Includes checking in front of any physical barrier to advancement.
 - 3. Including erecting or breaching stoppings, barricades, curtains, etc.
 - 4. Must be so indicated before physically passing through.
 - 5. Must be so indicated immediately upon reaching the placard indicating fire or intense heat.
 - c. This means the captain's physical presence is necessary before any part of an area can be considered as having been examined.
- 9. Self-explanatory.
- 10. Examples of endangerment include, but are not limited to:
 - a. 15 points will be assessed for each team member who:
 - 1. travels under bad roof or ground;
 - travels into water over knee deep; or into a sump containing water over knee deep;
 - 3. travels over or under an open ore pass or ore pocket into which they could fall or be injured by falling objects;
 - 4. advances past a sign indicating intense heat or fire out of control;
 - fails to take body substance isolation (BSI) precautions before physically contacting a patient;

- 6. fails to wear apparatus while examining the entrances to mine openings; and
- 7. enters smoke and is not connected to a team line.
- b. The entire team will be considered endangered and 75 points assessed for:
 - failure to check a shaft for possible damage, or the presence of fire or flooding, prior to traveling through it. For contest purposes, this check may be done by placing combustible materials on the cage and having the cage lowered to the level to be explored, then raising it to the collar.
 - 2. not having non-sparking tools in a gassy mine or when explosive gases are found in a non-gassy mine.
 - 3. changing conditions of the mine ventilation system in such a manner that an explosive mixture is moved over an ignition source or unexplored area. If a team explores all sides of an overcast or an undercast, both ends of a ventilation shaft, or the top and bottom of shafts when the shaft cannot be traveled, the in-between areas are considered explored for ventilation purposes.
 - 4. continuing exploration after conditions are found to indicate an imminent explosion is possible by the presence of an explosive mixture and the evidence of fire (smoke or carbon monoxide) and the location of the fire is unknown. A team must continue to explore if it knows there is a continuous nonexplosive separation between the explosive mixture and the evidence of fire.
 - 5. continuing exploration after an ignition source (i.e., electric or battery-powered equipment or any communication device that is not intrinsically safe) is found in an explosive mixture.
 - utilizing electric or battery-powered equipment in explosive air/gas atmosphere. Ignition sources would include any communication device, unless designated as sound-powered or intrinsically safe.
 - failure to take a functioning communication system into the mine or committing an intentional act that causes the communications system to break or fail while underground.
 - 8. removing a post that has been set to correct and support an unsafe roof condition.
 - 9. Enters smoke and is not connected to the lifeline.
- 11. This will be assessed for not exploring all areas of the mine that can be explored without endangering team if problem requires entire mine to be explored. All accessible areas must be tied across and behind before advancing. Where crosscuts are blocked, no team member may advance more than three (3) feet beyond the second intersection before tying across and/or behind into all unexplored areas that intersect. This may require building an air lock or returning to the fresh air base and exploring into other drifts at the discretion of the team and according to conditions of the mine. Shafts must be checked for possible damage, water, or fire, and must be traveled to be considered explored. All shafts must be traveled, if possible, before proceeding more than three (3) feet beyond the second intersection.
- 12. Personnel checks, not necessarily an apparatus check. The person making the check must obtain assurance from person being checked that he/she is all right (asking if person is okay will suffice).
- 13. Sealing or fighting a fire does not relieve the team of the responsibility of systematic exploration.
- 14. Failure to notify the fresh air base when an air/gas mixture, which reached its explosive range, has been encountered.
- 15. Self-explanatory.
- 16. Self-explanatory.
- 17. If a person is found behind a barricade or in a refuge chamber in a contaminated area, and the barricade or refuge chamber is not breached, the team may advance.
- An act which does not endanger the team, but may injure or result in the death of a survivor. Some examples of this would be:
 - a. Breaching a barricade with an IDLH atmosphere outside