

Excerpted from ANSI/ISEA 107-2015, *American National Standard for High-Visibility Safety Apparel and Accessories*

Appendix B

Suggested Type and Class Guidelines and Scenarios

(Appendix B is not part of ANSI/ISEA 107-2015, but is included for information only.)

High visibility garments should be chosen after a basic hazard assessment has been completed by a trained person designated by the employer, taking into account the expected threat environment, work activities, competing hazards, job classifications, and use policies.

1. Type O HVSA Scenarios – Occupational HVSA for Non-Roadway Use

Type O HVSA provides daytime and nighttime visual conspicuity enhancement for workers in occupational environments which pose struck-by hazards from moving vehicles, equipment and machinery, but which will not include exposure near to traffic on public access highway rights-of-way or roadway temporary traffic control (TTC) zones. Examples of pedestrian workers who could operate in this class may include:

1. those workers directing vehicle operators to parking/service locations;
2. workers retrieving shopping carts from parking areas;
3. those exposed to the hazards of warehouse equipment traffic;
4. oil and gas extraction workers;
5. refinery workers; and
6. mine workers.

Example Type O worker scenarios, for occupational activities which may:

1. permit full and undivided attention to approaching traffic;
2. provide ample separation of the pedestrian worker from conflicting vehicle traffic; and
3. permit optimum conspicuity in backgrounds that are not complex;

2. Type R HVSA Scenarios – Occupational HVSA for Use in Proximity to Roadways

Type R HVSA provides daytime and nighttime visual conspicuity enhancement for workers in occupational environments which include exposure to traffic (vehicles using the highway for purposes of travel) from public access highway rights-of-way or roadway temporary traffic control (TTC) zones, or from work vehicles and construction equipment within a roadway temporary traffic control (TTC) zone. The Type R designation includes multiple Classes of HVSA. Examples of pedestrian workers intended for this HVSA Type may include all the workers required to comply with United States Federal Regulations on worker visibility in the Manual on Uniform Traffic Control Devices (MUTCD), who are operating on or near public access roadways. Other categories of workers may also benefit from the conspicuity enhancement performance that this Type of HVSA provides. Examples of workers who could operate in this class may include:

1. roadway construction workers;
2. utility workers;
3. survey crews;
4. railway workers;
5. forestry workers;
6. school crossing guards;
7. parking and/or toll gate personnel;
8. airport baggage handlers/ground crew;
9. emergency response personnel;
10. law enforcement personnel;
11. accident site investigators;

12. roadway maintenance workers;
13. flagging crews;
14. towing operators; and
15. road assistance/courtesy patrols.

Example Type R worker scenarios, for occupational activities where risk levels exceed those for Type O such as where:

1. greater visibility is desired during inclement weather conditions;
2. complex backgrounds are present;
3. employees are performing tasks which divert attention from approaching vehicle traffic;
4. vehicle or moving equipment speeds exceed those in Type O scenarios; or
5. work activities take place in closer proximity to vehicle traffic.

Suggested Performance Class: 2 or 3 typical based upon certain conditions

3. Type P HVSA Scenarios – Occupational HVSA for Emergency and Incident Responders and Law Enforcement Personnel

Type P offers a range of HVSA for specifiers to choose from to address the range of potential hazards experienced by emergency and incident responders and law enforcement personnel. Type P HVSA provide daytime and nighttime visual conspicuity enhancement for emergency and incident responders and law enforcement personnel in occupational environments which include exposure to traffic (vehicles using the highway for purposes of travel) from public access highway rights-of-way or roadway temporary traffic control (TTC) zones, or from work vehicles and construction equipment within a roadway temporary traffic control (TTC) zone, or from equipment and vehicles within the emergency activity area. Type P HVSA provides additional options for emergency responders, incident responders and law enforcement personnel who have competing hazards or require access to special equipment. Workers intended for this HVSA Type may include all the emergency and incident responders and law enforcement personnel required to comply with United States Federal Regulations on worker visibility in the Manual on Uniform Traffic Control Devices (MUTCD), who are operating on or near public access roadways. Examples of pedestrian workers who could operate in this class may include:

1. law enforcement personnel;
2. emergency response personnel;
3. road closure personnel;
4. firefighting personnel; and
5. accident site investigators;

NOTE It is the intention of these Performance Class Guidelines and Scenarios to serve as an assessment tool only. Certain specific conditions such as atmospheric, sight/stop-distances, training, regulations, proximity, and others must be taken into account in any final hazard/safety assessment. Vehicle speed should not be considered in isolation to these variables. Extreme conditions might exist which require performance levels in excess of Performance Class 3. PPE should be selected to optimize color conspicuity between the wearer and the work environment.