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Emergency Responder Health and Safety Manual

Chapter 12

Transportation Safety

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U.S. Environmental Protection Agency

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LIST OF ACRONYMS

ACSA	American Council of Snowmobile Associations
AED	automated external defibrillator
AMC	GSA Accident Management Center
ATV	all-terrain vehicle
CAS	commercial aviation services
CDL	Commercial Driver's License
CDW	Collision Damage Waiver
CFR	Code of Federal Regulations
CMV	Commercial Motor Vehicle
CPR	cardiopulmonary resuscitation
DOT	U.S. Department of Transportation
DVD	digital video disc or digital versatile disc
ELT	emergency locator transmitter
EPA	U.S. Environmental Protection Agency
EPIRB	emergency position indicating radio beacon
ERV	emergency response vehicle
FAA	U.S. Federal Aviation Administration
FMCSA	Federal Motor Carrier Safety Administration
GOV	government-owned vehicle
GSA	U.S. General Services Administration
HSPC	Health and Safety Program Contact
IDP	international driving permit
ITCP	internal traffic control plan
MCC	GSA Maintenance Control Center
MMC	Merchant Mariner Credentials
MUTCD	Manual on Uniform Traffic Control Devices
NCTC	National Conservation Training Center
NOAA	National Oceanic and Atmospheric Administration
OEM	Office of Emergency Management
OLEM	Office of Land and Emergency Management (formerly called Office of Solid Waste and Emergency Response)
OSC	On-Scene Coordinator
OSWER	Office of Solid Waste and Emergency Response
PFD	personal flotation device
POV	privately-owned vehicle
PPE	personal protective equipment
PROD	Preparedness and Response Operations Division
ROHVA	Recreational Off-Highway Vehicle Association
SHEMP	Safety, Health, and Environmental Management Program
SSD	Safety and Sustainability Division (formerly called Safety, Health and Environmental Management Division)
SUV	sport utility vehicle
SVIA	Specialty Vehicle Institute of America
TAGA	trace atmospheric gas analyzer
TCP	traffic control plan

TTC	temporary traffic control (plan)
USCG	U.S. Coast Guard
UTV	utility-terrain vehicle
UV	ultraviolet light or radiation
VHF	very high frequency
VMO	Vessel Management Official

1.0 INTRODUCTION

1.1 Background Information and Regulatory Basis

Transportation incidents account for more than 40 percent of the annual number of fatal work injuries in the United States. Of the transportation-related fatal injuries that occurred in 2016, about 60 percent were roadway incidents involving motorized land vehicles; 16 percent involved pedestrians who were struck by vehicles (and nearly 16% of those fatalities occurred in work zones); 12 percent were off-road incidents involving motorized vehicles; 6 percent were due to aircraft incidents; and about 3 percent resulted from water transportation incidents.

When a hazardous substance release or oil spill occurs, the U.S. Environmental Protection Agency's (EPA's) emergency responders use whatever means of transportation is necessary to direct, monitor, and coordinate response actions. They may use road and off-road motorized vehicles, watercraft, or aircraft, all of which are governed by unique sets of regulations. This chapter was developed to identify the different types of transportation that EPA's emergency responders use and to provide basic guidance and direction on transportation safety. The chapter addresses emergency responder transportation to, from, and within field or site locations, including transportation of equipment, supplies and samples. It applies to all emergency responders that procure, operate, maintain, and/or use transportation during the course of EPA-related work.

The following resources were used to develop this chapter and provide the legal authority and requirements for administering a transportation safety program for emergency responders:

- Aircraft Owners and Pilots Association (http://www.aopa.org/).
- ATV Safety Institute (www.atvsafety.org/).
- Best Practices for Emergency Vehicle and Roadway Operations Safety in the Emergency Services (International Association of Fire Fighters, 2010).
- Department of Transportation Hazardous Materials Regulations (49 CFR Parts 171-180).
- EPA Driving Guideline. EPA Safety, Health and Environmental Management Program Guideline (September 2015).
- EPA Order 1440.2. Safety and Health Training Requirements for Agency Employees (January 10, 2011).
- Federal Aviation Regulations (14 CFR).
- Federal Management Regulation on Interagency Fleet Management Systems (41 CFR Part 101-39).
- Federal Management Regulation on Motor Vehicle Management (41 CFR Part 102-34).
- Federal Motor Carrier Safety Administration Hours-of-Service Regulations (49 CFR Part 395).
- Federal Motor Vehicle Safety Standards (49 CFR Part 571).
- Federal Travel Handbook (2016).
- Guideline 51 – Safety, Health and Environmental Management Training. U.S. EPA, Safety, Health and Environmental Management Division (August 2015).
- Guidelines for Employers to Reduce Motor Vehicle Crashes (OSHA/NHTSA/NETS, 2005).
- Guide to Your Fleet Vehicle. U.S. General Services Administration (March 2013).
- National Association of State Boating Law Administrators (https://www.nasbla.org/home).
- Office of Personnel Management Civil Service Regulations for Motor Vehicle Operators (5 CFR Part 930, Subpart A).
- Recreational Off-Highway Vehicle Association (ROHVA) (http://www.rohva.org/).
- Specialty Vehicle Institute of America (SVIA) (http://www.svia.org/#/).
- United States Coast Guard Boating Safety Resource Center (http://www.uscgboating.org/).
- Vessel Safety Manual, U.S. EPA, April 2012.

1.2 Instructions for Users

This chapter must be implemented across all EPA regions, OLEM special teams, and Headquarters. These organizations must adopt the requirements and management practices listed in this chapter and produce a customized version of the chapter that is reviewed/updated on an annual basis.

To customize the chapter, users must (1) complete Appendix A and (2) verify that the task assignments presented throughout the chapter (highlighted in yellow) are correct or modify them accordingly to reflect organization-specific practices. Additionally, if organizations advocate additional requirements, policies, or procedures, they must document them in Appendix B. Tools have been developed to support this chapter, including a glossary (Appendix C), checklists and forms. The forms and checklist for this chapter is found in the "Forms" section of the manual's website. See the Introduction chapter and the manual's website for more details on customizing and posting the chapter. The website also includes tools and resources that will be helpful to users, including downloadable forms, reference documents, and training materials.

2.0 ROLES AND RESPONSIBILITIES

Removal Managers; Safety, Health, and Environmental Management Program (SHEMP) Managers; Health and Safety Program Contacts (HSPCs); On-Scene Coordinators (OSCs); supervisors; individual emergency responders; vehicle managers; fleet managers, and others have roles and responsibilities in developing and implementing a transportation safety program. Appendix A summarizes the tasks that these key personnel must perform. Organizations may delegate a task to someone other than the default assignment presented in the appendix if they wish to do so. During a response, an OSC often serves as the Onsite Safety Officer.

3.0 MOTOR VEHICLE DRIVING REQUIREMENTS

The driving requirements in this section apply to EPA personnel using rental, commercial, government-owned or leased (GOV), and privately-owned vehicles (POVs) on official government business.

3.1 Vehicle Operators

Emergency responders who operate motor vehicles must (1) have a valid state driver's license for the type and size of vehicle to be operated including a commercial driver's license (CDL) if required (see Text Box 1), (2) complete driver safety training (see Section 11.0), and (3) operate vehicles in a safe manner in accordance with federal, state, and local laws (see the EPA Driving Guideline 31 for safe driving practices). Federal employees are excepted from the CDL requirement (40 CFR Part 383.3) when operating a Commercial Motor Vehicle (CMV) during the execution of emergency governmental functions. This exception only applies to emergencies and to CMVs that are equipped with audible and visual signals and are not subject to normal traffic regulations.

Text Box 1
License Types

License types and requirements for all vehicles vary by state. A CDL is required for commercial motor vehicles such as tractor trailers, buses, and other heavy duty vehicles. CDL classifications are based on vehicle weight, type, and cargo (e.g., Class A, B and C licenses). The Federal Motor Carrier Safety Administration (FMCSA) develops and issues the minimum requirements that all states must meet when issuing CDLs. States may exceed the minimum federal requirements and require more stringent driver qualifications. For current information, contact the local Fleet and/or SHEMP Manager to verify state license requirements and/or refer to the state CDL Manual available through the Department of Motor Vehicles.

EPA employees with driving duties must complete and sign EPA Form 4920-20 (*Motor Vehicle Operator Responsibilities Form*) and provide a copy to the Fleet Manager. Fleet Managers are responsible for verifying that personnel have valid driver's licenses before permitting use of GOVs (see Section 3.4). Non-government personnel, such as EPA contractors, also must have a valid license for the type of equipment to be operated when using government-supplied vehicles.

3.2 Vehicle Inspection

All EPA employees with driving duties are responsible for conducting vehicle safety inspections before use. Items to check include headlights, taillights, turn signals, brakes, mirrors, tires, fluid levels and other operator checks or inspections listed in the vehicle's owner's manual. The "Forms" section of the manual's website contains a suggested pre-trip safety inspection checklist to assist with this task. Vehicles found to be unsafe must not be used until the problem is corrected. For General Services Administration (GSA) fleet vehicles, vehicle operators should report deficiencies or existing vehicle damage to their Fleet Managers.

3.3 Seat Belts

Executive Order 13043 (*Increasing Seat Belt Use in the United States*) requires federal employees to wear seat belts when traveling on official agency business as drivers or passengers. This policy pertains to GOVs, POVs and taxies. Vehicle operators are responsible for ensuring that all passengers are wearing their seat belts before operating the vehicle. If two types of restraint are available, both must be used. In addition to EPA employees, contractors, and grantees using motor vehicles for the performance of official Agency business are strongly encouraged to adhere to these requirements. Exemptions to this policy include individuals with a valid disability that prevents appropriate restraint by safety belts and passengers riding in fleet shuttle buses or other vehicles that are not required to be equipped with safety belts. If a roomier belt is needed, seat belt extenders should be obtained from the vehicle manufacturer.

3.4 Government-Owned Vehicles

GOVs include government-owned or -leased automobiles and other types of motorized vehicles used to support EPA-related work (e.g., government aircraft). GOVs may only be used for official government business; any incidental use of a GOV must be authorized by EPA. The Agency is also responsible for authorizing non-federal individuals to accompany an EPA employee in a GOV. Government contractors may use GOVs, as addressed in the federal management regulations on official use of government motor vehicles (see 41 CFR 102-34 Subpart D). Federal employees operating a GOV must do the following:

- Carry a valid state driver's license, some form of Agency identification, and travel authorization specifically authorizing the use of a government-furnished vehicle.
- Operate vehicles in accordance with the manufacturer's recommended or approved uses; use all safety devices provided and follow all motor vehicle manufacturer safety guidelines.
- Prohibit the use of all tobacco products, including electronic cigarettes in GOVs.
- Park or store the vehicle in a manner that reasonably protects it from damage or theft. Lock the vehicle when unattended unless prohibited by fire regulations or other directives.
- Obey all motor vehicle traffic laws (see 41 CFR 102-34 Subpart D for traffic violations and parking fees and fines when using a government motor vehicle).
- Use the appropriate fuel for the vehicle. If applicable, alternative fueling stations can be located by using the U.S. Department of Energy's Alternative Fueling Station Locator.
- Obtain repair authorizations for GSA fleet vehicles from the national Maintenance Control Center (MCC) by calling (866) 400-0411 (Option 1). Service providers must get pre-authorization from the MCC for any maintenance purchases over $100 and for ALL tires and batteries regardless of cost. For glass repairs or replacements, contact the Accident Management Center (AMC) at (866) 400-0411 (Option 2) for a list of qualified vendors.
- Contact the local Fleet Manager for repairs or service for EPA-owned vehicles.

3.5 Privately-Owned Vehicles

EPA employees may use a privately-owned automobile or motorcycle that is maintained in safe operating condition for official business travel when authorized by the Agency. EPA employees who use POVs should inform their insurer that their vehicle is being used for business purposes and consult the latest Federal Travel Handbook for information on mileage allowance and reimbursable expenses.

3.6 Rental Vehicles

The use of rental vehicles is addressed in the Federal Travel Handbook and must be specifically authorized by EPA. Collision damage waiver (CDW) or theft insurance should be declined when renting vehicles for Agency business within the United States (because rental vehicles under agreement with the federal government include full coverage insurance for damages resulting from an accident while performing official travel). However, when traveling outside the continental United States (e.g., Canada or Mexico), rental insurance coverage should be reviewed with local Agency contacts to determine if it is necessary (e.g., due to rental or `leasing agency requirements, foreign statute, or legal procedures that could cause extreme difficulty for an employee involved in an accident). When such insurance is necessary, EPA employees will be reimbursed for CDW or theft insurance.

3.7 Accidents and Accident Reporting

In the event of a vehicle accident within the scope of the employee's job, emergency responders should follow the guidance and reporting requirements in Section 4.0 of the Injury, Illness, and Exposure Reporting chapter and/or the EPA Driving Guideline 31. Vehicle operators must properly report all accidents involving motor vehicles used for official government business regardless of the type of vehicle involved in the incident (i.e., GOV, POV, or rental). Accidents must be reported to immediate supervisors, the local SHEMP Manager and the vehicle manager. For GSA fleet vehicles, contact the AMC at (866) 400-0411. For EPA-owned vehicles, contact the local Fleet Manager. If the vehicle is rented from a commercial rental company, notify the rental company using the information on the rental agreement. Vehicle operators must submit completed SF-91 (*Motor Vehicle Accident Report*) and SF-94 (*Statement of Witness*) forms to their supervisors within five business days after the accident, including a copy of any other documents associated with the incident (e.g., travel authorization, rental contract, traffic citation, police report, etc.).

Text Box 2
Prohibited Activities While Driving

- Texting.
- Using personal or government-supplied electronic equipment to place calls or check email.
- Distracting conversation.
- Grooming.
- Programming navigation devices.
- Using radio/stereo headphones.
- Reading (including maps).
- Horseplay.
- Use of tobacco products, including electronic cigarettes.

3.8 Distracted Driving

Distracted driving is any activity that can divert a person's attention away from the primary task of driving and is a factor in 25 to 30 percent of all traffic crashes. All distractions endanger the driver, passengers, and bystanders, and crash risk increases when a driver is distracted. Prohibited activities for EPA employees while driving are summarized in Text Box 2.

The most hazardous distraction while driving is texting. Executive Order 13513 (*Federal Leadership on Reducing Text Messaging While Driving*) prohibits federal employees from text messaging (see Text Box 3) while driving government vehicles (owned, leased, or rented) or POV on official government business or while using electronic equipment supplied by the government while driving. It also requires federal agencies to encourage government contractors, subcontractors, and grantee personnel to comply with these prohibitions while driving on official agency business or when performing any work for or on behalf of the Agency.

Text Box 3
Texting While Driving

Text messaging includes reading from or entering data into a handheld device, including:

- Text messaging.
- Emailing.
- Instant messaging.
- Reading.
- Typing navigational information.
- Accessing any other data or communications.

The texting prohibition applies when operating a motor vehicle on an active roadway, including while temporarily stationary (e.g., due to traffic, a traffic light or stop sign). It does not apply to circumstances where the driver has pulled over to the side of, or off, the roadway in a location where the motor vehicle can safely remain stationary (with or without the engine running).

Drivers may listen to or glance at navigational devices while driving, provided that the destination was entered into the device prior to driving or while safely stopped off the roadway. Certain individuals, devices, or vehicles may be exempted from the text messaging prohibition of Executive Order 13513 by the Agency Administrator. The criteria for these exemptions are noted in the Executive Order.

3.9 Fatigue and Drowsy Driving

Fatigue and drowsiness are closely related. Fatigue is an overall feeling of exhaustion from physical or mental exertion, whereas drowsiness is sleepiness or a feeling that one is about to go to sleep (see Text Box 4). The EPA Driving Guideline 31 places limits on the amount of time employees (and contractors operating government vehicles) are allowed to drive because driver fatigue results in reduced alertness and productivity and is a risk factor for motor vehicle accidents. Vehicle operators must comply with the following work/rest guidelines except during the first 24 hours of emergency driving:

Text Box 4
Warning Signs of Fatigue and Drowsy Driving

- Trouble keeping your head up.
- Difficulty focusing or keeping your eyes open; frequent blinking.
- Yawning repeatedly or rubbing your eyes.
- Trouble remembering the last few miles driven; missing exits or traffic signs.
- Daydreaming; having wandering and disconnected thoughts.
- Feeling restless and irritable.
- Lane drifting, tailgating, or hitting a shoulder rumble strip.

- Drive only if there has been at least 8 consecutive hours of off-duty time before beginning a work shift. Riding in a vehicle is considered on-duty time.
- Work and drive no more than 14 hours in a 24-hour period (includes travel time to/from lodging).
- Drive no more than 11 hours per driver during a work shift. If another eligible driver is present, that individual may take over for the driver and operate the vehicle until he/she has reached the 14-hour work shift limit.
- Drive no more than 4 hours without a rest stop of at least 15 minutes. If operating a vehicle carrying 15 or more passengers, stop for at least 15 minutes every two hours.

Permissible driving hours may be adjusted by the local SHEMP Manager or Incident Safety Officer when interfering factors can increase driver fatigue (e.g., adverse weather, traffic congestion, doing exhausting work on site or working on site during periods of high heat stress).

In addition to the limits on drive time, vehicle operators should take the following actions to help prevent incidents associated with fatigue and drowsy driving:

- Get a full night's sleep before driving. Stop if fatigued. A 15- to 45-minute nap and drinking a caffeinated beverage (e.g., coffee, tea) can help temporarily.
- Set a realistic goal for the number of miles that can be safely driven each day.
- Stop at regular intervals when driving long distances. Get out of the vehicle every 2 hours to stretch and walk briskly.
- Avoid taking medications that cause drowsiness (such as over-the-counter medications for allergies, cough, nausea or stomach upsets).
- Plan rest stops and pay attention to driver behavior during the late night, early morning, and mid-afternoon hours when drowsy driving crashes are most likely to occur.
- Driving times should be reduced to not more than 8 hours per driver for night driving and during periods of inclement weather. Due to reduced alertness and performance during night time hours, two or more qualified drivers should be assigned and these drivers should rotate driving duties every two hours between the hours of 2200 and sunrise.
- A minimum of two qualified drivers should be assigned during road trips of greater than 400 miles or driving times of 10 hours within 24-hour period. Drivers should rotate driving responsibility to ensure that no individual driver exceeds the driving limitations previously stated.

3.10 Impaired Driving

Driving while impaired means operating a motor vehicle under the influence of alcohol, drugs, or both. Approximately 40 percent of fatal crashes are attributable to alcohol impaired driving and alcohol is a factor in 39 percent of all work-related traffic crashes.

EPA vehicle operators should not consume alcohol or drugs before or during vehicle operation. In addition, the EPA Driving Guideline 31 prohibits taking prescription drugs that can cause dizziness or lack of concentration or reduced response time while driving. Alcohol and many drugs (prescription and over-the-counter drugs) adversely affect judgment, reaction time, and coordination. Driving skills are impaired in most people well before they exhibit outward signs of drunkenness.

3.11 Transporting Hazardous Materials

Hazardous materials should be shipped to or from the work site using U.S. Department of Transportation (DOT) trained and certified shippers (contact the local SHEMP Manager for assistance). When self-transport of limited quantities of hazardous materials (e.g., compressed gases, analytical chemicals, field samples, or hazardous waste products generated by field operations) is necessary, the vehicle operator must obtain appropriate hazard awareness training and is responsible for ensuring the materials are packaged, marked, and labeled in accordance with the applicable DOT hazardous materials regulations (see 49 CFR Parts 171-180). Hazardous materials should be transported in closed secondary containers or DOT-approved containers, out of passenger seating areas, and must not exceed quantity limits. If necessary, information on interpretation and compliance with the hazardous materials transportation regulations can be obtained by contacting the DOT Pipeline and Hazardous Materials Safety Administration as follows:

- Call the Hazardous Materials Information Center at 1-800-467-4922 (in Washington DC call 202-366-4488). The Center is staffed from 9 AM through 5 PM Eastern time, Monday through Friday except

federal holidays. After hours, leave a recorded message and your call will be returned by the next business day.

- Email the Hazardous Materials Information Center at infocntr@dot.gov.
- Obtain hazardous materials safety information through the Internet at http://www.phmsa.dot.gov.

Vehicles that are contaminated with hazardous materials must be properly cleaned and decontaminated to ensure the safety of future passengers. Appropriate personal protective equipment (PPE) (such as gloves and safety glasses) should be used for cleaning when appropriate. The SHEMP Manager or HSPC should be contacted if assistance is needed for proper PPE selection.

3.12 Emergency Warning Lights and Sirens

Most state motor vehicle codes have provisions that exempt emergency response vehicles (ERVs) from certain traffic regulations when responding to an emergency (such as exceeding the posted speed limit and passing through intersections against a red traffic light). These statutes allow ERVs to bypass specific traffic regulations with the understanding that the vehicle will be operating with its emergency warning devices activated. These devices include emergency vehicle lighting and sirens. State motor vehicle codes also specify the minimum number, types, and colors of warning lights for various types of ERVs. In the United States, red, yellow (or amber), white, green, and blue-colored lights, or any combination thereof, are used on ERVs.[1] The local Fleet Manager, SHEMP Manager or HSPC should ensure that the organization's ERVs have lighting systems and other warning devices that are within the bounds of the state motor vehicle codes and any other standards that may apply. Organizations that are unsure whether or not they are in compliance with the state motor vehicle codes should seek assistance from the region's state police agencies or departments of transportation.

Each EPA organization must also establish documented policies and procedures for emergency driving and all drivers should be thoroughly trained in these procedures. When traveling in an emergency mode of operation, the driver of the ERV should never endanger the lives of civilians or fellow responders. The SHEMP Manager or HSPC is responsible for ensuring that emergency driving procedures are developed and documented (see Text Box 5). Key factors to consider when developing these procedures include, but are not limited to, the following:

Text Box 5
Large or Complicated Emergency Responses

In the event an Incident Command System has been implemented at a response site, EPA employees must follow the driving requirements of that command.

- Using emergency warning lights and sirens to go through stop signs and red lights is dangerous.
- Warning devices only request the right-of-way, they do not ensure the right-of-way.
- Intersections are the most likely place to be involved in a response-related crash. When proceeding through negative right-of-way intersections (red light, stop sign), if not required by state laws, ERV drivers should come to a complete stop and then proceed with caution and due regard for the safety of persons and property, unless directed otherwise by a police officer regulating traffic at the intersection. There probably are few if any situations serious enough to warrant proceeding through intersections without first coming to a complete stop. The differences between slowing the vehicle and rolling through an intersection versus coming to a complete stop likely only extends the response time by a couple of seconds per intersection. A risk versus benefit perspective should be used to determine if there is any likelihood that a slightly faster arrival on the scene will make a difference in the outcome of the incident.

[1] Blue lights have the widest variety of uses. In many states, blue lights are used with red and/or other colors of lights on all types of ERVs. In other states, blue lights are used on public utility vehicles (e.g., snowplows and tow trucks) and privately-owned vehicles operated by volunteer firefighters and emergency medical services personnel. In a few states, all blue lights are used for law enforcement vehicles.

3.13 International Travel

Many foreign countries do not recognize U.S. driver's licenses. Before traveling to a foreign country (e.g., Canada and Mexico), EPA employees should check the Country Specific Information posted on the State Department's website to see if their U.S. driver's license is valid. If required, an International Driving Permit (IDP) can be obtained at the local office of one of the two automobile associations authorized by the State Department: AAA (American Automobile Association) and the National Automobile Club.

When traveling in foreign countries, federal employees operating government vehicles are required to have proper insurance coverage in the event of an accident or incident. Federal agencies such as EPA are responsible for obtaining this insurance. Agencies may purchase the coverage directly, or as noted in Section 3.6 (Rental Vehicles), EPA employees may purchase the coverage and be reimbursed by the Agency. In some countries, the required coverage is minimal. In these cases, EPA employees should consider purchasing additional insurance coverage that is at least comparable to their coverage carried within the United States.

When operating a POV, U.S. automobile insurance policies might provide coverage in countries neighboring the United States (i.e., Canada and Mexico). Before leaving for Canada, EPA employees should check with their insurers to see if their policy provides coverage. If a U.S. policy is valid in Canada, it might not provide adequate coverage to meet the country's minimum requirement. However, if a vehicle is under-insured, auto insurance can usually be purchased separately in most cities and towns on both sides of the border. In Mexico, Mexican insurance is required for all vehicles. U.S. automobile liability insurance and most collision and comprehensive coverage issued by U.S. insurance companies are not valid in Mexico.

GOVs operating in Canada and Mexico must have special supplemental insurance. Regions with GOVs approved to travel into bordering nations are sent cards with the insured GOV information and point of contact information by the supplemental insurance company. Emergency Responder and GOV entry procedures are found in the Bi-National Contingency Plans. Impacted Removal Managers should work with OEM PROD and local Fleet Managers to assure that all requirements for GOV use in Canada and Mexico are met.

The country-specific information on the State Department's website includes vital information that should be reviewed prior to entering or traveling in a foreign country. The information addresses entry and exit requirements, vehicle permits and insurance, automobile accidents and road emergencies, traffic safety and road conditions, driving regulations, public transportation, and other topics important to the safety, security, and wellbeing of EPA employees driving or working in a foreign country.

4.0 SAFE MOTOR VEHICLE OPERATING PRACTICES

Roadway crashes are the leading cause of work-related fatalities in United States. The primary responsibility of all motor vehicle operators is to drive focused and to get to their destination safely. Safe driving practices include always wearing a seat belt and avoiding aggressive, distracted, drowsy, and impaired driving. Safe vehicle-specific practices are discussed below (Sections 4.1 through 4.3).

4.1 Sports Utility Vehicles (SUVs), Minivans, and Pickup Trucks

SUVs, minivans and pickup trucks are more susceptible to rollovers than cars because they have a higher center of gravity and are more top-heavy (e.g., SUVs are more than three times as likely to roll over as automobiles). To keep tall and narrow passenger vehicles under control and prevent accidents, follow the manufacturer's safe operating practices and do the following:

- Check tire condition and pressure at least monthly. A major cause of SUV rollovers is a flat tire resulting from under-inflation. Underinflated tires heat up more quickly increasing the chance of a blowout. Adjust tire pressure according to the pressure recommended by the vehicle manufacturer when tires are cold.
- Do not overload SUVs and pickups. Overloading with passengers and cargo dramatically increases the risk of a rollover. Ensure that load weight and distribution (including use of the roof rack) are well within the manufacturer's recommendations and avoid placing heavy loads on the roof which increases the risk of a rollover especially during an emergency maneuver. Place the heaviest items low on the floor in the cargo area and as close to the center of the vehicle as possible. Place medium to lighter weight items at the rear of the cargo area closest to the rear hatch or door.

4.2 Large Specialty Vehicles

Large specialty vehicles are be used for emergency response activities such as the TAGA buses and mobile laboratories and command posts. Driving large vehicles requires advanced skills and knowledge beyond that required to drive a car or other light-weight vehicle. EPA employees and contractors driving large specialty vehicles must demonstrate the ability to exercise reasonable control in operating the vehicle. Operator training should include both a classroom, a hands-on component and a road course. Online and DVD training programs for comparably-sized recreational vehicles are available and relevant and are an option for the classroom segment in the event that vehicle-specific programs are not available. Depending on the state and the vehicle weight and type, a special driver's license, including a CDL, could be required for some large specialty vehicles. Federal employees are excepted from the CDL requirement (49 CFR Part 383.3) when operating a Commercial Motor Vehicle (CMV) during the execution of emergency governmental functions. This exception only applies to emergencies and to CMVs that are equipped with audible and visual signals and are not subject to normal traffic regulations.

Before traveling with a large vehicle, know the vehicle height and fully loaded weight (passengers and cargo). Verify that the manufacturer weight ratings and the maximum height allowed by tunnels, bridges, parking garages, and overpasses on the travel route will not be exceeded. Avoid parking large vehicles in low lying or soft ground areas or where trees or power lines could fall on the vehicle. Chock the vehicle wheels whenever the vehicle is parked.

4.3 Off-Road Vehicles

When off-road vehicles are used for response activities, EPA personnel must be familiar with the vehicle before using it and complete training per the manufacturer's and/or the local SHEMP Manager's requirements. Off-road vehicles must be operated per the manufacturer's instructions/guidelines and at a speed that is appropriate for the terrain, visibility, operating conditions, and the operator's driving experience. A documented safety inspection must be done to check the operation and condition of all off-road vehicles before use. The vehicle owner's manual should be consulted for the items to check. Vehicles that do not pass the inspection must not be used. Deficiencies should be noted on the inspection checklist and the Fleet Manager or the Onsite Safety Officer should be notified so the vehicle can be repaired. The "Forms" section of the manual's website includes examples of checklists that could be used for the safety inspection. Specific off-road vehicles used by emergency responders are discussed below (Sections 4.3.1 through 4.3.3).

4.3.1 Segways

Segways are two-wheeled, self-balancing, electronic scooters that are a handy and quick way to move around a large workplace or jobsite. Segways are not intended or recommended for primary use on roads and when ridden improperly, there is risk of death or serious injury from falls and collisions. Before riding a Segway

for the first time, users must read and follow the manufacturer's instructions and warnings (see the Getting Started and Reference Manuals) and watch the safety video. These materials and other safety-related information are available online at Segway Safety. Users should practice using Segways in a controlled training environment (with a level, smooth riding surface, no obstacles or distractions, and a spotter) until they are comfortable riding on this type of vehicle. To minimize the risk of injury when riding Segways, EPA employees must also do the following:

- Wear a helmet that fits properly with the chin strap in place. Use an approved (Consumer Product Safety Commission, ASTM International, or Snell) bicycle or skate board helmet that provides protection for the back of the head.
- Do not wear loose clothing or jewelry that could get caught in the Segway.
- Never exceed the maximum weight limit for rider and any cargo (260 pounds).
- Maintain proper tire pressure (stated on any affixed wheel label). Exceeding the correct tire pressure reduces suspension performance and traction, and increases the likelihood of losing control, collisions, and falls. Low tire pressure reduces the battery range and could result in tire and wheel damage.
- Avoid riding over obstacles (e.g., curbs, steps, holes) and slippery surfaces (e.g., snow, ice, wet floors and wet grass), steep slopes, and loose materials (e.g., sand and gravel) that could result in loss of balance or traction. These surfaces are potentially dangerous to ride on. If they are unavoidable, get off the Segway and use the Riderless Balance Mode to move it across the hazard.
- Do not get back on the Segway after a safety shut-down until the condition that caused the safety shutdown has been identified and corrected.
- Before charging the Segway battery, ensure that the charge port, power cord, and outlet are dry and that the outlet is properly grounded.

4.3.2 All-Terrain Vehicles/Utility-Terrain Vehicles

Each all-terrain vehicle (ATV) or utility terrain vehicle (UTV) operator (see Text Box 6) must be thoroughly familiar with all aspects of the ATV or UTV being used and must be trained in the practical use of the vehicle.

ATV operators can complete the ATV Safety Institute's ATV E-Course or other ATV Rider Course. All states have ATV regulations. Prior to use, emergency responders should review the applicable state ATV requirements summarized on the Specialty Vehicle Institute of America's (SVIA) website.

UTV operators can complete the online safety course available through the Recreational Off-Highway Vehicle Association (ROHVA) or other UTV driving safety class.

If practical, ATV and UTV training should involve hands-on operation and driving practical exercises.

Minimum operating requirements for ATVs and UTVs include the following:

- Read and follow the manufacturer's operating manual and warning labels.

Text Box 6
ATVs versus UTVs

ATVs are ridden; they have a handlebar for steering, hand levers for the throttle and brakes, and with few exceptions, typically have a large seat to be straddled by a single operator, with no passenger. ATVs are rider-active; the rider must be able to shift body weight while riding to properly operate the ATV.

UTVs (also called side-by-sides and recreational off-highway vehicles or ROVs) are driven; they have a steering wheel and acceleration and brake foot pedals. UTVs are designed for an operator with a valid driver's license and one or more passengers. They have side-by-side seats or a bench seat and are equipped with seat belts. UTVs also have a rollover protective structure, side retention features (hard plastic doors or sturdy canvas netting) and handholds.

- Wear proper PPE. For ATVs, proper PPE includes a DOT-approved helmet with face shield or goggles, gloves, long sleeves and long pants, and over-the-ankle boots. For UTVs, minimum PPE is Level D PPE. Helmets are recommended, but not required. Hearing protection is recommended when operating ATVs or UTVs for extended periods of time.
- Wear seat belts when operating or riding in a UTV and keep arms and legs inside the vehicle.
- Never exceed the stated load capacity (passengers and cargo). Cargo should be properly distributed, securely attached, and carried as low as possible. Never carry passengers in a UTV cargo box.
- Do not ride on paved roads (except to cross when done safely and permitted by law).
- Equip each vehicle with an inclinometer, a basic tool kit, and at least one fire extinguisher suitable for flammable liquids.
- Do not operate on side slopes greater than 20 degrees or inclines/declines greater than 30 degrees.
- Do not exceed a maximum speed of 15 miles per hour (mph). Speeds up to 25 mph may be allowed based on rider experience and operational need.

4.3.3 Snowmobiles and Snowcats

Basic training is required for the safe operation of snowmobiles (also called snowmachines). EPA emergency responders must review the snowmobile owner's manual, complete an online safety training course, and obtain hands-on instruction from a competent person. Online safety training and information are available through numerous resources such as the American Council of Snowmobile Associations (ACSA), SNOWMOBILEcourse.com, and snowmobileinfo.org. Before using a snowmobile, emergency responders should also check applicable state laws and regulations. Many states require a license, registration, and/or permit to operate snowmobiles.

Snowcats should only be operated by personnel that have acquired the skills and expertise necessary to safely handle these vehicles. If training is required, it can be obtained from a competent person within EPA, by specialized training companies or consultants, and by snowcat dealers. Operator training should include classroom and field safety training, handling emergency repairs, and winter survival techniques. If snowcat services are hired, emergency responders should ensure that the operator is properly trained and certified and that the vehicle has undergone a complete and documented safety inspection.

Text Box 7 summarizes the required protective clothing and equipment for snowmobiles and snowcats. Vehicle operators should also carry appropriate emergency kits. Suggested items for these kits are included in the "Forms" section of the manual's website. Other safety practices include the following:

- Check the weather forecast and avalanche conditions for areas of planned travel. Avoid entering avalanche areas. If travel in mountainous areas is necessary, carry a transceiver (beeper), avalanche probes, and a shovel.
- Use the buddy system (avoid traveling alone).

Text Box 7
Snowmobile and Snowcat Protective Clothing and Equipment

Snowmobile:
- DOT-approved snowmobile helmet
- Face shield or goggles (UV protection)
- Snow gloves and snowmobile boots
- Snowmobile suit with hood (preferred) or winter pants and jacket (wind and waterproof)
- Snowmobile owner's manual and tool kit
- Emergency equipment and supplies

Wear outer clothing with reflective trim on arms, back and helmet. Do not wear long scarves or loose clothing that could get caught in moving parts.

Snowcat:
- Winter pants and jacket
- Snow gloves
- Boots
- Emergency equipment and supplies

- If using a snowcat, conduct a safety briefing with personnel that will be riding in the snowcat before each trip. Never bypass any snowcat safety switches or devices. If the snowcat has separate operator and passenger compartments, be sure there are voice communication devices so the operator and passengers can communicate without leaving their compartments.
- Inspect unfamiliar terrain before proceeding. Avoid steep slopes and gullies that are more likely to slide.
- Use a two-way radio or cellular phone for communication.
- Avoid riding on frozen water bodies. If travel over frozen water is necessary, carry emergency ice picks and wear a snowmobile suit that contains flotation material or a personal flotation device. If the ice breaks, follow these self-rescue tips:
  - Kick vigorously until a level position is attained and swim to the nearest ice edge.
  - Extend hands/arms forward on the unbroken ice while kicking hard. (If a sharp object is available, jab it into the ice and pull on it to get out of the water.)
  - Work forward onto the unbroken ice.
  - Keep sliding/crawling on the ice away from the break until solid ice is reached.
  - Stand, keep moving to generate body heat, and take immediate action to prevent hypothermia.

5.0 TOWING AND TRAILERING

During response activities, EPA emergency responders may need to use a trailer to transport mobile laboratories, boats, ATVs, snowmobiles, and other field-related equipment to the response site. Per SHEMD Guideline 51 and EPA Order 1440.2, all employees who drive trailers in tow for EPA business must receive specialized training in trailer loading and towing before being allowed to do so. This specialize training should involve hands-on loading, unloading, driving and backing practical exercises. Detailed safety and operating instructions are provided in SHEMD's Trailer Towing and Safety Manual (2004). Vehicle operators must verify that the tow vehicle, trailer, and hitching system are compatible with each other. The "Forms" section of the manual's website includes guidance for conducting a vehicle-trailer-hitch compatibility analysis which must be completed before towing a trailer. Vehicle operators must also perform a pre-departure safety check of the tow vehicle and trailer. The checklist included in the "Forms" section of the manual's website can be used to assist with this visual safety inspection. Each checklist item should be evaluated and deemed satisfactory. Unsatisfactory findings require corrective action before the trip can be taken. Vehicle operators should also do the following:

- Load and distribute cargo in accordance with the tow vehicle and trailer owner's manuals. If necessary, take the vehicle and trailer to a public weighing station.
- Chock trailer wheels whenever the trailer is parked.
- Check state and local towing requirements prior to travel. See the AAA Digest of Motor Laws and/or NRCMOD.com for summaries of United States and Canadian towing laws, or contact the applicable local motor vehicle department.
- Check intended travel routes for low overhead clearances and restrictions on bridges and tunnels. Remove all masts and rotate all antennas to the down position, if applicable.
- Ensure all tow vehicles carry at least one ABC fire extinguisher (minimum 2.5 lbs.). If towing a mobile laboratory, ensure that it is equipped with a fire extinguisher appropriate for the type and quantity of chemicals on board. In addition, ensure that compressed gas cylinders are disconnected from equipment, capped, and secured in a cylinder rack; chemicals are stored in closed, leak-proof containers that are secured within the laboratory; and all cabinet doors are closed and secured.
- Plan trips with multiple drivers and switch drivers about every two hours to prevent driver fatigue (towing is more stressful than regular driving and more likely to cause driver fatigue). If only one driver

is available, take short breaks every two to three hours.

6.0 TRIP PLANS

Trip plans are required when traveling to remote or isolated work areas with off-road vehicles such as ATVs, UTVs, snowmobiles, and snowcats. The plan should include the purpose of the trip, destination, planned route, names of passengers, and the estimated departure, arrival, and return times. Trip plans ensure that others (not on the trip) are aware of the driver's whereabouts which is especially important if inclement weather is expected or the driver is traveling alone. Vehicle operators should enter the required information into the site log or file the plan with the OSC or the Onsite Safety Officer. Regular communication checks (e.g., every 15 minutes) with the base operation are also recommended.

Consider developing a trip plan for any official travel during inclement weather or when traveling on official duty between 2200 hours and sunrise. At a minimum, emergency responders traveling during inclement weather or late at night must check in with the Regional Duty Officer, Safety Officer, Supervisor, etc. as appropriate when they depart and arrive at their destination.

7.0 TRAFFIC CONTROL PLANS

Traffic control plans (TCPs) should be developed for different phases of the response effort as site conditions change and include two types:

- Temporary traffic control (TTC) plans that describe the traffic controls to be used for facilitating public traffic (motorists and pedestrians) through a work zone or an incident area. This type of plan is required for response activities performed within the public right-of-way.
- Internal traffic control plans (ITCP) that coordinate the flow of construction vehicles, equipment, and workers operating within the work zones.

TCPs should follow the design and work zone criteria specified in Part 6 (Temporary Traffic Control) of the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD contains detailed specifications for signage, markings, and traffic signals; temporary traffic control measures for a variety of scenarios; and worker safety considerations such as training, PPE, speed reduction, barriers, and lighting as they apply to roadway work zones. All TTC plans should include the four elements that constitute a temporary traffic control zone: the advance warning area; the transition area; the activity area; and the termination area.

ITCPs should be developed after the TTC plan has been established and should address safe construction traffic control principles such as:

- Isolating workers from construction equipment.
- Reducing the need to back up.
- Limiting vehicle access points to work zones.
- Coordinating truck and equipment movements.
- Providing signs within the work zone to give guidance to workers on foot, equipment and trucks.
- Designing buffer spaces to separate workers on foot from errant vehicles and work zone equipment.
- Informing all on-site workers and personnel of the ITCP provisions.

Each ITCP should include a diagram of the basic work area layout showing the places where workers on foot will normally be located; the types of equipment in the work area; the path of travel each piece of equipment will take; the access and egress points for trucks and other equipment; the location of utilities and storage areas; and documentation explaining the diagram and personnel duties.

Guidance on the development of TCPs is available through numerous resources such as the National Institute for Occupational Safety and Health (Building Safer Highway Work Zones: Measures to Prevent Worker Injuries from Vehicles and Equipment); the Occupational Safety and Health Administration (Highway Work Zones and Signs, Signals, and Barricades); The National Work Zone Safety Information Clearinghouse; and the Laborers' Health and Safety Fund of North America (Work Zone Safety).

8.0 TRANSPORTATION ON WATER

The operation of all EPA watercraft (owned, operated, or leased; powered and unpowered) must be in accordance with the minimum acceptable safe vessel specifications and operational procedures described in the EPA Vessel Safety Manual. All individuals (e.g., vessel operators/crew, response and scientific staff, passengers) who board EPA vessels of any size must read and understand the requirements of the Vessel Safety Manual. Safety, operational, and security requirements vary depending on the vessel classification (see Text Box 8).

Text Box 8
EPA Vessel Classes

Class A Vessels (small craft)
All powered watercraft less than 65 feet in length (includes watercraft carried onboard larger vessels, berthed at a pier, or carried on a trailer).

Class B Vessels
Powered watercraft 65 feet or greater in length with gross tonnage less than 300.

Class C Vessels
Powered watercraft 65 feet or greater in length with gross tonnage greater than 300.

EPA employees who operate small craft (less than 65 feet) as part of their assigned duties must (1) be approved by the designated vessel management official (VMO) for the operation of the vessel; (2) satisfactorily complete an approved boating safety course (e.g., BoatUS Foundation, National Association of State Boating Law Administrators, United States Coast Guard Auxiliary, or the United States Power Squadrons) upon initial assignment as a boat operator; (3) obtain an operator's license if required (mandatory boat operator licensing is required by Alabama, American Samoa, Delaware, Louisiana, New Hampshire, New Jersey, Puerto Rico, Vermont and Washington, D.C.); and (4) successfully complete any additional requirements determined by the designated VMO (such as a first aid course). All other employees (i.e., non-crew staff) should complete a general boating safety awareness course upon initial assignment to field activities on EPA vessels. For larger watercraft (including chartered vessels), operator/crew requirements are discussed in the EPA Vessel Safety Manual.

All EPA watercraft must be operated in accordance with applicable federal and state regulations. Applicable federal regulations include Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the Code of Federal Regulations (CFR). A reference guide for state boating laws, aids to navigation (waterway markers), and the United States Coast Guard's (USCG) navigation rules are accessible through the USCG's website at https://www.navcen.uscg.gov/?pageName=navRulesContent. Key watercraft safety topics are discussed below.

8.1 Vessel Inspection

A documented pre-departure safety inspection must be completed before launching any vessel. In the case of extended operations, the oncoming vessel operator should get a briefing from the previous operator and then conduct a thorough inspection prior to departure. The purpose of the inspection is to ensure the vessel is in good working condition (e.g., structurally sound; bilges clean; no unsafe conditions with engines/fuel

systems, steering, ventilation, electrical system/components, head and water systems, galley, etc.), free from fire hazards, and properly equipped for emergencies. Vessel lifesaving and safety equipment requirements are discussed in Section 9 of the EPA Vessel Safety Manual. Safety equipment requirements for small craft are summarized in Text Box 9.

To assist with the inspection process, vessel operators should consult the vessel manufacturer's operating manual and the safety checklist items developed by the Coast Guard Auxiliary as part of their vessel safety check program (see the Coast Guard Auxiliary virtual vessel safety check, the Vessel Safety Check Form, and/or the Vessel Safety Check Manual).

Text Box 9
Minimum Safety Equipment Requirements for Powered Small Craft

- Personal flotation devices (PFDs)/life jackets
- Life rafts (operating in ocean, Great Lakes, or > 5 miles from shore).
- Exposure suits (when water plus air temperature is ≤ 100°F).
- Buoyant work vests (working near/over water)
- Ring buoys (vessels > 26 feet)
- Line-throwing device (manually thrown)
- Visual distress signals (pyrotechnic and non-pyrotechnic).
- Sound-producing devices (whistle, bell, gong if ≥ 40 feet; same or manual horn if power vessel < 40 feet).
- Fire extinguishers
- Operable navigation lights
- Bailing device (in addition to bilge pumps)
- First aid kit
- Paddle
- Marine band very high frequency (VHF) radio
- Anchor and anchor rode (rope/chain)
- Cellular phone
- Emergency Position Indicating Radio Beacon (EPIRB) (recommended).
- Global Positioning System receiver

See Section 9 of the Vessel Safety Manual for details.

8.2 Launching and Recovery

Vessels should be loaded and prepared for launching away from the launch ramp as a courtesy to others and to prevent rushing during the launch. Set the tow vehicle parking brake and try to keep the rear wheels out of the water. If the exhaust pipes become immersed in water, the vehicle engine may stall. Once in the water, lower the motor (be sure there is enough water depth so the propeller does not get damaged), run the bilge blowers (if equipped) and check for fuel leaks. Start the motor and ensure that water is passing through the engine cooling system. Release the winch and disconnect the winch line from the bow when the vessel operator is ready. Launch the vessel with a light shove or by backing off the trailer under power. Finish loading the vessel at a distance from the ramp so that others may use the launch ramp. To retrieve the vessel, reverse the steps taken to launch it. When approaching the takeout ramp, note that conditions may exist during retrieval that did not exist during launching (e.g., environmental conditions and increased boat traffic). Launching and retrieving small craft is discussed in the Trailer Towing Safety training course (PowerPoint presentation) located on the SHEMD website. A generic listing of common procedures associated with vessel launching and recovery is included in the "Forms" section of the manual's website.

8.2 Load Management

Overloading with too many people and/or too much gear will cause a vessel to become unstable. Do not exceed the USCG maximum capacities information label (commonly called the capacity plate). The capacity plate provides the vessel's maximum safe limits under ideal sea conditions. Changes in the weather and seas will reduce this capacity. If there is no capacity plate on vessels less than 20 feet, use the formula in Text Box 10 to determine the maximum number of persons that can be safely carried in calm weather. Ensure passengers stay seated (in small vessels) and that loads are low and secure (to prevent shifting) and evenly distributed fore and aft and from side to side.

Text Box 10
Capacity Determination for Vessels Less than 20 Feet

Number of people that can be safely carried in calm waters =

$$\frac{\text{Length of Boat (ft) x Boat Width (ft)}}{15}$$

8.4 Buddy System and Float Plan

A minimum of two individuals are required to be on board at all times during vessel operations. Operators of small craft (less than 65 feet) must also file an appropriate float plan with their base operations before embarking to track the departure and return of the vessel and close the float plan when operations/travel are complete. The tow vehicle type and trailer (if applicable) should be referenced in the float plan for identification purposes in the event a search is needed. A template form that includes the elements of a detailed float plan is available through the Coast Guard Auxiliary. This form and other examples of float plans are included in the "Forms" section of the manual's website. For operators of larger vessels, a cruise plan must be filed with their home port before getting underway. Cruise plans and the required information are discussed in Section 10 of the EPA Vessel Safety Manual.

Safety Briefing: Vessel operators must conduct a safety briefing with all personnel on board prior to getting underway. Briefing topics include (but are not limited to) the vessel operator's supervisory role, crew responsibilities, boarding procedures, potential hazards, PPE requirements, review and demonstration of safety and lifesaving equipment, possible emergency situations and the required actions (e.g., fire, man overboard, taking on water, power failure, adverse weather, and grounding), and the response tasks to be completed and the procedures involved.

8.5 Weather and Sea Conditions

Vessel operators should check the local weather forecast prior to departure, understand any weather limitations associated with their vessel, and should not depart unless the conditions and vessel will allow for safe operations. Once underway, operators should keep an eye out for changing weather conditions and act accordingly. Weather changes generally approach from the west and signs of changing conditions may include cloud buildup (especially rapid vertically rising clouds), a sudden change in wind direction and/or speed, and/or a sudden drop in temperature. If a barometer is available on the vessel, it should be checked every 2 to 3 hours. A falling barometer indicates rainy or stormy weather.

Weather restrictions and safety precautions during heavy weather conditions (i.e., high winds, extreme sea states, and heavy rain, snow, and/or hail) are discussed in Section 12 of the EPA Vessel Safety Manual. EPA Class A vessel operators should consider canceling operations if a small craft advisory is in effect, there are conditions that could lead to one, or there is a greater warning in effect for the water body involved. Safety tips for handling small craft under adverse weather conditions are summarized in Text Box 11.

Text Box 11
Boat Handling in Foul Weather

Prepare the Vessel:
- Reduce speed keeping enough power to maintain headway and steering.
- Close all hatches, windows, and doors to reduce chance of swamping.
- Stow unnecessary gear.
- Turn on navigation lights. If there is fog, sound the foghorn.
- Keep bilges free of water. Be prepared to remove water by bailing.
- If there is lightning, disconnect all electrical equipment and stay clear of metal objects.

Prepare the Passengers:
- Ensure all personnel are wearing their life jackets and that they are secured properly.
- Seat personnel on the bottom of the vessel, as close to the centerline as possible for their safety and to make the vessel more stable.

Go to Shore or Ride Out the Storm:
- Head for the nearest shore that is safe to approach. If already caught in a storm, it may be best to stay in open water rather than approach the shore in heavy wind and waves.
- Head the bow into the waves at a 45 degree angle.
- If the engine stops, drop a "sea anchor" on a line off the bow to keep the bow headed into the wind and reduce drifting while you ride out the storm. In an emergency, a bucket will work as a sea anchor.
- If the sea anchor is not sufficient, anchor using the regular anchor to prevent drifting into dangerous areas.

8.6 PPE

Section 9 of the EPA Vessel Safety Manual discusses the requirements for PFDs (life jackets). All EPA vessels must be provided with serviceable, USCG-approved Type I, II, or III PFDs, properly fitted and appropriately sized for each person on board. EPA Class A vessels greater than 16 feet long must also carry at least one Type IV throwable PFD. Operators of Class A open-style vessels must require all occupants outside the cabin to wear a PFD at all times while the vessel is underway. In addition to PFDs, other PPE may be required depending on the type of vessel and the nature of the operations (e.g., hard hats, hearing protection, safety glasses or goggles, hip boots or chest waders, harnesses and lifelines, respirators, gloves, foot protection, and others). All vessel personnel must wear the required PPE as specified by the OSC, Onsite Safety Officer, or the vessel operator. When potential exposure conditions are unknown, Level A PPE is required.

8.7 Communications Equipment

The requirements for communications equipment on board EPA vessels are described in Section 9 of the EPA Vessel Safety Manual. At a minimum, EPA Class A vessels/small craft (less than 65 feet) must have the following communications capabilities:

- A marine VHF radio (i.e., transceiver, a combined transmitter and receiver). Canoes and kayaks and other unpowered vessels only require a handheld VHS receiver.
- At least one portable two-way marine VHF radio (stowed where it can be rapidly placed in any survival craft).
- Any additional communications capability deemed necessary for safe operations.
- For operating on the Great Lakes: A marine VHF radio, cellular phone, and EPIRB (recommended).

Marine radios must be able to operate on channels 16 (emergency and distress calls only) and 22A (USCG coastal forecasts and storm warnings); the WX channels (National Oceanic and Atmospheric Administration [NOAA] weather); and other appropriate local channels that have digital selective calling capability. The USCG Navigation Center website includes a listing of VHF channels and frequencies, the procedure for sending a distress call (VHF Channel 16 MAYDAY), and other helpful information for safe navigation.

8.8 Fast Water Operations

EPA emergency responders should avoid operating in flood waters if at all possible. When it is unavoidable, the following should be considered:

- Evaluate the needs and risks of taking immediate response actions.
- Use the NOAA and USCG websites to monitor gage stations and river conditions.
- Consider river dynamics. Land the vessel facing upstream and into the current. When working near boom, ropes, and other obstacles, approach from the bottom up.
- Avoid flooded bridges and wooded areas, log jams, and other strainers.
- Avoid operating near low head dams and upstream of anchored vessels, bridge pilings, docks, and other obstructions.
- Determine the water depth often. During vessel launching, use a pole or stick to check the condition and depth of the launch ramp.

8.9 Electrofishing Boats

Electrofishing equipment uses voltages and currents that can be fatal to humans and must never be used alone. A minimum of two properly trained individuals is required for every electrofishing team (three to four trained individuals is recommended). At least one individual (team leader) on each team must have successfully completed the National Conservation Training Center's (NCTC) course on the *Principles and Techniques of Electrofishing*. All members of the electrofishing team must be trained in the standard operating procedures, receive an electrofishing safety orientation prior to the start of electrofishing activities, and undergo a safety briefing at the start of each day's activities. The safety orientation must include the NCTC *Electrofishing Safety* course. At least two members of every team must also be trained in first aid, cardiopulmonary resuscitation (CPR), and the use of an automated external defibrillator (AED). Electrofishing equipment must receive a safety inspection before each use. Electrofishing boats and the personnel operating them must comply with the applicable requirements of this chapter and the EPA Vessel Safety Manual (e.g., vessel operator competency and training and filing a float plan). PPE requirements include but are not limited to PFDs; elbow length rubber lineman's gloves (rated 5,000 volts minimum) visually inspected before each use; polarized sunglasses; hearing protection; chest and hip waders with non-slip soles; rubber deck boots (or rubber decking material); non-conductive soled shoes; and long-handled dip nets with insulated handles (metal or aluminum must not be used). Every electrofishing boat should also be equipped with an AED.

8.10 Unpowered Vessels

EPA operators of unpowered vessels (e.g., vessels under oars such as kayaks and canoes) must take an approved safe boating course and ensure that their vessel complies with the safety requirements specified in the EPA Vessel Safety Manual. These requirements are limited and include PFDs and handheld VHF receivers. If operated at night, unpowered vessels must also carry a 360-degree white navigation light (such as a hand-held, waterproof, 360-degree flashlight) which must be exhibited in sufficient time to prevent collision. Safety tips and information on training courses for operators of canoes, kayaks, and other paddle-type unpowered vessels are available on the American Canoe Association (ACA) website.

9.0 TRANSPORTATION BY AIR

During an environmental emergency, EPA emergency responders may need to use government aircraft for various activities such as aerial surveillance and sample collection via helicopters and/or small airplanes (e.g., overflights during flooding or oil spill response; detecting and mapping toxic chemical plumes released by disaster or terrorist acts). A government aircraft is any aircraft owned, leased, chartered, rented, or borrowed and operated by the government (see Text Box 12).Whenever government aircraft are used or commercial aviation services (CAS) are hired, the OSC or the Onsite Safety Officer must ensure compliance with the federal management regulations on management of government aircraft (41 CFR Part 102-33), including the establishment of Agency-specific flight program standards and, as applicable, require compliance with these standards (e.g., in contracts and agreements). Flight program standards establish or require policies and procedures to ensure that aircraft are operated safely, effectively, and efficiently. The requirements for flight program standards are outlined in 41 CFR Part 102-33.140 through Part 102-33.185.

Text Box 12
Government Aircraft

Government aircraft means an aircraft operated for the exclusive use of EPA and is a:

- Federal aircraft, which EPA owns, bails, loans, or borrows; or
- Commercial aircraft hired as commercial aviation services, which EPA:
  - Leases or lease-purchases with the intent to take title;
  - Charters or rents; or
  - Hires as part of a full service contract or an inter-agency agreement.

Source: 41 CFR Part 102-33 (Management of Government Aircraft)

9.1 Small Aircraft Safety Guidelines

Small aircraft may take off or land in remote areas including bodies of water (e.g., lakes and small or hilly islands without proper airstrips). Flight attendants will not be available to help with passenger safety and there may be no enclosed walkway to access the aircraft from the airport terminal (i.e., passengers may have to walk across an open airstrip to board the aircraft).Whenever small aircraft are used for response operations, EPA emergency responders should ensure that they are aware of their immediate surroundings at all times, follow the directions provided by the flight crew, and walk along designated walkways to ensure they are seen by any moving aircraft and are clear of aircraft hazards such as wings, propellers, rotor blades, and air intakes and exhausts. Different types of aircraft have different boarding procedures; so, it will be important to know in advance how to approach and leave the aircraft. This is especially true for helicopters and floatplanes (also called seaplanes or pontoon planes). Approaching and departing all aircraft must be done in full view of the pilot. Helicopters must always be approached from the front (see Section 9.4) and small airplanes must only be approached when the engine and propeller(s) have come to a complete stop.

The pilot is responsible for the safety of the aircraft and passengers at all times and a flight plan is required for all flights. Emergency responders should brief the pilot on the intent and any known hazards of their response operation and any other pertinent information. The pilot should provide a safety briefing (see Section 9.3) concerning the safety and emergency features of the aircraft. If a complete passenger safety briefing is not automatically given, emergency responders should insist that one be provided.

Emergency responders should ensure that they know how to quickly fasten their seat belt if instructed to do so during the flight. Restraint systems can vary on smaller aircraft and may include different systems than those typically used on commercial airliners or automobiles such as multi-point harnesses. The pilot should be informed of the weights and types of cargo brought on the aircraft and all equipment and gear should be properly stowed and secured so that the cabin is free from obstructions. Emergency responders sitting in the front of the aircraft must avoid interfering with the flight controls and switches and keep all items clear of the controls. Conversation with the pilot should be limited to matters concerning the flight. Do not speak to the pilot during takeoff and landing, unless it is to warn of an emergency. After landing, emergency responders should remain in the aircraft with the door closed and latched and seat belts fastened until the pilot instructs them otherwise.

9.2 Flight Plan

Flight plans must be prepared and filed with the appropriate party prior to each flight and are especially important when flying over inhospitable areas such as water or rough terrain. When aviation services are hired by EPA, the OSC or Onsite Safety Officer must ensure that the aircraft pilot files a flight plan with his or her company or the Federal Aviation Administration (FAA). Flight plans generally include basic information such as the pilot's name, address, and telephone number; the number of people on board; the aircraft type, color, and identification; the type of flight (instrument flight rules or visual flight rules); departure and arrival points; route and estimated time en route; and alternate airports in case of bad weather. An example FAA flight plan form for domestic flights within United States airspace is included in the "Forms" section of the manual's website.

9.3 Pre-flight Pilot Safety Briefing

A thorough pre-flight safety briefing should be conducted before all flights and include a review of the safety features and emergency equipment on board the aircraft. EPA emergency responders should listen closely to the briefing and follow all instructions. The safety briefing will vary depending on the type of aircraft, but in general should include the following:

- Prohibition of smoking on or near any aircraft or refueling station.
- Proper storage of equipment and gear.
- Proper seat position.
- Operation of seat belts and shoulder harnesses.
- Location and operation of doors (during normal operations) and emergency exits (e.g., single latch, multiple latches, latch requiring two actions at once to operate).
- Location and use of the fire extinguisher.
- Use of oxygen (if required).
- Location and use of PFDs.
- Location and use of emergency/survival equipment and the Emergency Locator Transmitter (ELT).
- Shut off procedures for battery and fuel.

At the conclusion of the briefing, the pilot should give passengers an opportunity to ask questions about the intended flight. EPA emergency responders should take this opportunity to clarify any part of the briefing that they have questions, concerns, or are unclear about (e.g., is the pilot licensed; will the flight be done visually or on instruments; has a weather forecast been obtained; has a flight plan been filed; is the aircraft overloaded; etc.). Every aircraft also carries a passenger safety card that should include all of the information from the pilot's safety briefing and additional details about the plane's safety procedures. Emergency responders should be sure to also review the passenger safety card prior to departure.

If emergency communications are not included in the safety briefing, emergency responders should request that the pilot discuss the emergency communications equipment on board the aircraft (e.g., handheld transceiver, satellite phone, pilot's personal locator beacon, etc.) including a brief introduction to the aircraft's built-in radios. The pilot should point out where the master switch, avionics master and transmitter buttons are located and how to tune in the aircraft emergency frequency (121.5 megahertz). In some aircraft the ELT can be turned on with a switch in the cockpit. If the aircraft is so equipped, the pilot should show emergency responders where the switch is located. Finally, if not addressed during the briefing, emergency responders should ask the pilot which electronic equipment they may use during the flight.

9.4 Helicopters

Safe work practices for helicopter travel (in addition to the general guidance provided in Section 9.1) include (but are not limited to) the following:

- Always stay clear of the helicopter and within the pilot's field of vision (i.e., the area from the doors forward).
- Establish eye contact with the pilot and wait for the pilot's signal before approaching (or leaving) the helicopter.
- Duck or walk in a crouched position well below the main rotor (i.e., you need to lower your profile because the main rotor blades can sag or droop, often due to a gust wind) and always approach or leave from the front. Walk around the front of the helicopter to get to the other side. Never approach or leave the helicopter from the rear or go near or under the tail rotor. The tail rotor is dangerous; when it is spinning it almost disappears.
- Hold clothing items (hats, jackets) firmly against the "rotor wash." Carry equipment or other gear at or below waist level so it remains well below the main rotor and never raise arms above the head.
- Never throw anything from or at the helicopter.
- Upon entering the helicopter, firmly close and properly latch the door. Securely fasten seat belt/harness and put on the communication headset (ensure it is working before takeoff).

- On a hill or slope, approach and depart on the downhill side only. Never approach or depart a helicopter on the uphill side.
- If refueling is necessary during a longer flight, leave the helicopter and move a safe distance from the aircraft during the procedure, until refueling is complete.

9.5 PPE and Emergency Equipment

While working aboard small aircraft, emergency responders should wear fire resistant Nomex® flight suits if available. Eye and hearing protection should be worn whenever working outside a running helicopter and a helmet with both communication and hearing protection capabilities should be worn while traveling on helicopters.

PPE for flights over extensive areas of water must include PFDs with locator lights for each occupant of the aircraft. Life jackets should be put on prior to take off and should not be inflated before clearing the aircraft door in the event of a water landing. In addition to PFDs, survival equipment for overwater operations (provided by the aircraft owner or operator) should include enough life rafts (each with a locator light, pyrotechnic signaling device, and survival kit) to accommodate the occupants of the aircraft; a lifeline, and a portable water-resistant emergency radio signaling device.

Emergency responders should always dress (wear or bring clothing) and carry a survival kit appropriate for the conditions along their flight route. The essential items recommended for an overland survival kit are listed in Text Box 13.

Text Box13
Overland Survival Kit

- Compass.
- Clothing to survive most adverse conditions probable.
- Some form of emergency shelter.
- Extra food and water (water is more important).
- Flashlight with extra bulb and batteries.
- Waterproof matches or other means of starting a fire.
- Fire-starting material such as a candle or cotton balls covered in petroleum jelly (stored in 35 mm plastic film containers).
- First aid kit.
- Sunglasses or other type of eye protection.
- Knife.
- Topographic map.

Source: FAA Aviation News (January / February 2007)

9.6 Aircraft-Related Training

All emergency responders that travel on government aircraft or hire CAS should complete a general awareness aircraft safety course upon initial assignment to field activities. If available, emergency responders should also participate in initial and periodic aircraft water ditching and survival training. Recommended training topics include (but are not limited to) preventing injury during impact/proper brace positions for the aircraft, seat, and seat belt configuration; underwater egress; hands-on use of PFDs; raft deployment; and surface water survival.

10.0 COMMUNICATIONS

Before using any type of transportation to respond to an environmental emergency, EPA emergency responders must check with their immediate supervisor and field office to determine the communication requirements for the planned mode(s) of travel and ensure that they adhere to those requirements (e.g., the method and frequency of communication and the required communication devices; trip, float, and flight plans, other).

11.0 SUMMARY OF TRAINING REQUIREMENTS

Transportation-related training requirements have been presented throughout this chapter. Table 1 provides a summary. In accordance with EPA Order 1440.2 and SHEM Guideline 51, all field workers are required to take basic driver safety training, which is identified in the first row of Table 1. The rest of the training requirements listed in the table may or may not be required for a specific emergency responder; it depends on

the job tasks and duties the individual is expected to fulfill. For example, those who may be required to operate an ATV or operate watercraft will be required to take the corresponding training. Immediate supervisors and SHEMP Managers (assisted by HSPCs) will determine which training requirements apply to each individual emergency responder. See the Health and Safety Training Program chapter for additional information on the procedures that regions and special teams must follow to provide and document training.

Table 1
Transportation Safety Training Requirements for Emergency Responders

	Activity	Training Requirements	Frequency
On-Road Motor Vehicles	Employees who operate passenger motor vehicles (e.g., cars, SUVs, vans, and pickup trucks)	General driving awareness training per the requirements in the EPA Driving Guideline 31.	Upon initial assignment to duties and annual refresher. Note: Employees completing SHEMD's online driver safety training program developed by the National Safety Council are not required to take additional driving awareness training.
	Employees who operate vehicles that require a CDL	Specific vehicle operating characteristics and CDL requirements.	Upon initial assignment to duties and annual refresher.
	Employees towing while driving	Specialized training in trailer loading and towing (awareness and practical application).	Upon initial assignment to duties and refresher every 3 years.
	Employees who may conduct emergency driving of GOVs	Specialized training for the operation of emergency vehicles (awareness and practical application).	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
	Employees who may operate a vehicle used to transport hazardous materials	Hazardous materials transportation awareness training or DOT-certified shipper (49 CFR 172.704) as determined by the local SHEMP Manager.	Awareness training: Upon initial assignment to duties. DOT-Certified Shipper: Within 90 days of employment or first day of change in job function and refresher every 3 years.
	Employees who operate large specialty vehicles that do not require a CDL	Specialized training in operating the large vehicle (awareness and practical application). Must demonstrate ability to exercise control in operating vehicle and, if required, obtain a special state (non-CDL) license.	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
Off-Road Motor Vehicles	Employees who operate Segways	Read/follow manufacturer's instructions/ warnings and watch the safety video. Practice using until comfortable riding this type of vehicle.	Upon initial assignment to duties and annual refresher.
	Employees who operate ATVs	Read/follow manufacturer's instructions/ warnings. Complete ATV Safety Institute's ATV E-Course and/or hands-on ATV Rider Course.	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
	Employees who operate UTVs	Read/follow manufacturer's instructions/ warnings. Complete ROHVA online safety course and/or hands-on UTV driver course.	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
	Employees who operate snowmobiles	Read/follow manufacturer's instructions/ warnings. Complete online safety training course (see Section 4.3.3) and obtain hands-on instruction from competent person. If required, obtain state license, registration, and/or permit to operate.	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
	Employees who operate snowcats	Specialized training for the operation of snowcats (awareness and practical application) per the requirements in Section 4.3.3. (Note: Operator certification is required if snowcat services are hired.)	Upon initial assignment to duties and refresher every 3 years or as deemed necessary by the local SHEMP Manager.
	Employees who ride in snowcats as passengers	Passenger safety briefing.	Before each trip or use.

Table 1
Transportation Safety Training Requirements for Emergency Responders

	Activity	Training Requirements	Frequency
Watercraft	Employees who operate watercraft (powered and unpowered) less than 65 feet (EPA Class A vessels)	Read and understand applicable requirements of the EPA Vessel Safety Manual; complete an approved boating safety course (see Section 8.0); obtain operator's license if required; and complete additional requirements as determined by the VMO.	Upon initial assignment as a vessel operator and refresher as deemed necessary by the local SHEMP Manager.
	Employees who operate/crew EPA Class B vessels	(1) Operator (captain/master): USCG Merchant Mariner Credentials (MMC) and applicable endorsements. (2) Additional crew members: Captain/master to determine competence and provide needed training; USCG licensing or MMC not required. Refer to Section 5.0 in the EPA Vessel Safety Manual.	Upon initial assignment and refresher as deemed necessary by the vessel operator (re additional crew) or the VMO (re vessel operator).
	Employees who operate/crew EPA Class C vessels	USCG licensing and/or Merchant Mariner Credentials and applicable endorsements. Refer to Section 5.0 in the EPA Vessel Safety manual.	Upon initial assignment and/or per applicable Standards of Training Certification and Watchkeeping as noted in Section 5.0 of the EPA Vessel Safety Manual.
	Employees who are passengers on powered watercraft	(1) Passenger safety briefing. (2) Read and understand applicable requirements of the EPA Vessel Safety Manual; and complete an approved boating safety awareness course (see Section 8.0).	(1) Before each trip or use. (2) Upon initial assignment to field activities and refresher as deemed necessary by the local SHEMP Manager.
	Employees who operate unpowered watercraft (e.g., canoes, kayaks)	Complete an approved boating safety course (see Section 8.0).	Upon initial assignment to field activities and refresher as deemed necessary by the local SHEMP Manager.
	Employees who operate electrofishing boats	(1) Team Leader: Complete NCTC course on *Principles and Techniques of Electrofishing*. (2) All team members: Receive training on standard operating procedures; complete NCTC *Electrofishing Safety* course; undergo safety briefing at start of each day's activities. (3) At least two team members: Trained in first aid, CPR, and the AED.	(1) Upon initial assignment and refresher as deemed necessary by the local SHEMP Manager. (2) At least once per season and prior to start of electrofishing activities or when joining the team during the field season. Safety briefing before each trip. (3) Upon initial assignment to duties and refresher every 2 years.
Aircraft	Employees who are passengers on government aircraft or hire CAS.	(1) General awareness aircraft safety training; water ditching and survival training. (2) Pre-flight pilot safety briefing.	(1) Upon initial assignment to field activities and refresher as deemed necessary by the local SHEMP Manager. (2) Before each flight.

12.0 RECORDKEEPING

EPA's recordkeeping goal for the emergency responder transportation safety program is to ensure that nationally consistent, readily accessible records are maintained by each EPA organization. Table 2 summarizes the specific recordkeeping procedures that must be followed, who is expected to complete specific forms, and who must retain copies of the records. It does not address recordkeeping associated with training, as such procedures are already discussed in the Health and Safety Training Program chapter.

Table 2
Transportation Safety Recordkeeping Requirements

Required Record	Details/Specified Forms	Completed/Compiled By[a]	Retained By[a]
Verifying employee possession of a valid state driver's license	EPA Form 4920-20	Vehicle Operator	• Fleet Manager • SHEMP Manager • Vehicle Operator
Obtaining a driving permit for travel in a foreign country	International Driving Permit (IDP)	Vehicle Operator	• Fleet Manager • SHEMP Manager • Vehicle Operator
Conducting a pre-trip or pre-use vehicle safety inspection	• Safety inspection checklist for passenger vehicles (see the "Forms" section of the manual's website.) • Safety inspection checklists for off-road vehicles	Vehicle Operator	• Field office or site files • Another designated person
Verifying operator credentials and vehicle condition when hiring snowcat services	• Snowcat operator training and certification • Snowcat safety inspection	Snowcat services contractor	• Site files • SHEMP Manager (or another designated person)
Reporting a motor vehicle accident	• SF-91 • Authorization to travel • Rental contract • Police report • Traffic citation • Others (see the Injury, Illness, and Exposure Reporting chapter) • SF-94	• Vehicle Operator • Supervisor (or another designated person) • Witness(es)	• Vehicle Operator • Supervisor • Fleet Manager or AMC • SHEMP Manager • Another designated person
Documenting policies and procedures for emergency driving	Documented emergency driving procedures	SHEMP Manager (or another designated person)	SHEMP Manager (or another designated person)
Conducting a vehicle-trailer-hitch compatibility analysis	Documented vehicle-trailer-hitch compatibility analysis (see the "Forms" section of the manual's website.)	Vehicle Operator	Field office or site files
Conducting a pre-trip safety check of the tow vehicle and trailer	Safety inspection checklist for tow vehicle and trailer (see the "Forms" section of the manual's website.)	Vehicle Operator	Field office or site files
Filing a trip plan when operating off-road motor vehicles	Trip plan	Vehicle Operator	• Supervisor/Field Office • Site log or file
Developing traffic control plans	TTC plan and/or ITCP	Onsite Safety Officer (or another designated person)	Site files
Conducting a vessel safety inspection	Vessel safety check form	Vessel Operator	Field office or site files
Filing a float plan before embarking	Float plan (see the "Forms" section of the manual's website.)	Vessel Operator	• Supervisor/Field Office • Site log or file
Establishing Agency-specific flight program standards	Documented flight program standards	OSC, Onsite Safety Officer, or SHEMP Manager (or another designated person)	• Field office or site files • SHEMP Manager (or another designated person)
Filing a flight plan before departing	Flight plan (see the "Forms" section of the manual's website.)	Aircraft pilot	Pilot's company or the FAA

[a] The delegation of recordkeeping responsibilities presented in this table reflects the chapter authors' opinions. The assignments have been made with regional audiences in mind, so the positions listed might not be applicable for special teams, and headquarters. Users can adjust the assignments when they customize Appendix A and verify/modify information in the yellow-highlighted spaces that appear throughout this chapter.

APPENDIX A

Designation of Roles and Responsibilities

Instructions for Users

Appendix A provides a place for users to insert organization-specific information into the HASP chapter. The appendix presents a list of tasks that must be performed to ensure that EPA meets HAZWOPER's requirements for a HASP. The tasks are listed in rows. EPA position titles (e.g., the Removal Manager or the HSPC) are listed in columns. Each task has been assigned to a default position. For some of the tasks, check marks have been placed in two or more columns to indicate that more than one person is responsible for that task. **Please note that users can re-delegate tasks.**

Users must take the following steps to customize Appendix A:

- Fill in the background information requested at the top of page A-3. For example, indicate when the table is being updated and who is doing the updating.
- Fill in actual names under the position titles.
- Add additional key players to the table (if necessary). *Note: The chapter authors have already provided a placeholder to add a new position, as the last column is labeled "Other." Users should customize this column to identify the position title (and name) of any additional key player assigned responsibility to implement this chapter. Users can insert more columns to include additional key players (if necessary).*
- Add rows to the table (if necessary) to provide information about activities that exceed the minimum requirements already included in Appendix A. (See Appendix B for a list of your organization's additional policies and procedures related to this chapter.)
- Determine whether any of the recommended task assignments must be delegated to another person. (If so, move the check marks to re-assign the task.)

Ensure that each task has been

Attention OLEM Special Teams and headquarters users: The tasks and position titles that appear in Appendix A have been written with regional audiences in mind. OLEM special teams and headquarters users should modify the language that appears in the rows and column headers to reflect the needs of their organization.

APPENDIX A
Task Chart for Implementing the Transportation Safety Chapter

This table has been customized for: EPA Region 4**.**
Last Updated on: August 9, 2018**.**
Updated by: Kevin Eichinger**.**

TASKS ▼ / ROLES ►	Who Is Responsible for Each Task or Action?							
	Removal Manager	**SHEMP Manager**	**HSPC**	**Immediate Supervisors**	**Onsite Safety Officers**	**Emergency Responders (e.g., OSC)***	**Fleet Mangers**	**Other**
Name of Person in Role ►	See Appendix A-2 in the Introduction chapter for the names of personnel that fill these roles.							
General Tasks								
1. Implement the Transportation Safety chapter by: (1) customizing the chapter with organization-specific information, (2) reviewing/updating the customized version annually, and (3) adopting the requirements and practices in the chapter. Post the customized chapter to the manual's Web site and inform stakeholders of its availability.	✓	✓	✓	✓	✓	✓	✓	
Tasks Associated with Motor Vehicle Driving Requirements (Section 3.0), Safe Motor Vehicle Operating Practices (Section 4.0), Towing and Trailering (Section 5.0), Trip Plans (Section 6.0), Traffic Control Plans (Section 7.0), and Communications (Section 10.0)								
2. Have a valid state driver's license for the type and size of vehicle to be operated including a commercial driver's license (CDL) if required (Section 3.1)						✓		
3. Obey all traffic laws and operating vehicles in a safe and responsible manner (Section 3.4)						✓		
4. Wear seatbelts at all times while vehicles are in motion (Section 3.3)						✓		
5. Use hands-free cell phones devices and do not text, use GPS units or participate in any other distracted driving actions while operating an on or off road vehicle (Section 3.8)						✓		
6. Follow and enforce the required and recommended fatigue and drowsy driving controls (Section 3.9)						✓		
7. Assure that all requirements for GOV use in Canada and Mexico are met. (Section 3.13)	✓						✓	
8. Understand and operated specialty motor vehicles such as ATVs, UTVs and large commercial vehicles in a safe and responsible manner (Section 4.0)						✓		
9. Don all required PPE and wear seatbelts (if available) while operating UTVs and ATVs. (Section 4.3.2)						✓		
10. Conduct a vehicle-trailer-hitch compatibility analysis and provide to emergency responders who are training an authorized to two equipment trailers. (Section 5.0)			✓					
Task Associated with Transportation on Water (Section 8.0)								
11. Assure all vessels are operated in accordance with applicable federal and state regulations. (Section 8.0)		✓	✓		✓	✓		
12. Assure that appropriate float plans with their base operations before embarking to track the departure and return of the vessel and close the float plan when operations/travel are completed and filed. (Section 8.4)					✓	✓		
Task Associated with Transportation by Air (Section 9.0)								

TASKS ▼ / ROLES ►	Who Is Responsible for Each Task or Action?							
	Removal Manager	SHEMP Manager	HSPC	Immediate Supervisors	Onsite Safety Officers	Emergency Responders (e.g., OSC)*	Fleet Mangers	Other
Name of Person in Role ►	See Appendix A-2 in the Introduction chapter for the names of personnel that fill these roles.							
13. Assure that flight plans are prepared and filed with the appropriate party prior to each flight and are especially important when flying over inhospitable areas such as water or rough terrain. (Section 9.2)					✓			
14. Assure that a thorough pre-flight safety briefing is conducted before all flights and include a review of the safety features and emergency equipment on board the aircraft. (Section 9.3)					✓			
15. Listen closely to the briefing and follow all instructions discussed in the pre-flight safety briefing. (Section 9.3)						✓		
Tasks Associated with Training Requirements (Section 11.0)								
16. Complete the required training listed in Table 1 of this chapter.						✓		
17. Develop training materials that cover the components listed in Table 1 of this chapter and ensure that training is delivered to emergency responders.		✓	✓		✓			
Tasks Associate with Recordkeeping (Section 12.0)								
18. Retain copies of motor vehicle accident records (i.e., *OSHA & EPA 301 Injury, Illness and Near Miss Report*, SF-91, SF-94, SF-95, employee's authorization to travel, rental vehicle contract, police report, other documents/receipts associated with the incident).		✓		✓		✓	✓	
19. Ensure that training requirements are tracked in the FRM and that the Removal Manager or supervisor is aware of which employees have/have not completed their training requirements. Contact emergency responders who have not completed the necessary training to inform them that they need to do so and alert them of the next available training session.		✓	✓					
20. Retain copies of documents that certify the completion of safety and health training requirements.						✓		

APPENDIX B

Transportation Safety: Additional Policies and Procedures

The procedures and tasks outlined in the HASP chapter represent the **minimum requirements** that each EPA organization must meet. If organizations advocate the use of additional policies and procedures, they must document them in the table below. After doing so, they must also:

- Ensure that the additional policies and procedures that are added to the table below are also addressed in the main text of the HASP chapter. This can be accomplished by either (1) inserting the additional policies and procedures directly into the relevant portions of the main body of the chapter or (2) adding a sentence within the main text that directs readers to Appendix B for more information.
- Update Appendix A to capture any additional tasks that are listed in the table below and ensure that each task is assigned to a specific individual.

Topic	**Please document the additional elected policies and procedures required for EPA Region 4 here.**
Section 3.0 Motor Vehicle Driving Requirements	See R4 ERRB Standard Operating Guidelines at https://response.epa.gov/hsmanualregion4 1. SOG T107: Equipment Trailer Towing 2. SOG T108: Utility Vehicles (UTVs) and All-Terrain Vehicles (ATVs) Use 3. SOG T114: Transporting Hazardous Material sin Government Owned Vehicles
Section 4.0 Safe Motor Vehicle Operating Procedures	
Section 5.0 Towing and Trailering	
Section 6.0 Trip Plans	
Section 7.0 Traffic Control Plans	
Section 8.0 Transportation on Water	
Section 9.0 Transportation by Air	
Section 10.0 Communications	
Section 11.0 Training Requirements	
Section 12.0 Recordkeeping	
Other topics _____ _____ _____ _____	

APPENDIX C

Glossary

GLOSSARY

Administrative Vehicle
A vehicle used to facilitate administrative transportation of personnel. This includes, but is not limited to, attending meetings and other routine transportation that does not require special equipment.

All-Terrain Vehicle (ATV)
An all-terrain vehicle (ATV), also known as a quad, quad bike, four-wheeler, or quadricycle as defined by the American National Standards Institute (ANSI) is a vehicle that travels on low-pressure tires, with a seat that is straddled by the operator, along with handlebars for steering control. As the name implies, it is designed to handle a wider variety of terrain than most other vehicles.

Alternative Fuel
Automotive fuels that are an alternative to petroleum gasoline and diesel. Fuels in this category include, but are not limited to, electric, Natural Gas (normally Compressed Natural Gas (CNG)), biodiesel, 85% ethanol (E85), and propane.

Alternative Fuel Vehicles (AFV)
Vehicles that are able to operate on fuel other than gasoline and diesel. Configurations include dedicated AFV, flex-fuel vehicles and bifuel vehicles. A percentage of the vehicles acquired each year by the federal government are required to be AFV by the Energy Policy Act (EPACT) and Executive Order (EO) 13149.

Commercial Motor Vehicle (CMV)
Commercial trucks are vehicles that have Gross Vehicle Weight Rating (GVWR) of more than 26,000 lbs or passenger capacity of more than 15 people (including the driver). This includes, but is not limited to, tractor type trucks, truck/trailer combinations above 26,000 lbs, buses, some delivery trucks, etc. State laws require professional civilian drivers and civilian federal employees to have a current Commercial Drivers License (CDL) or permit to drive commercial vehicles as described by state vehicle laws.

Emergency
An emergency situation is a defined as a situation where delay will result in death, grievous injury, or additional catastrophic property or environmental damage.

Emergency Vehicle
Any vehicle equipped with emergency lights and audible devices to enable a vehicle to negotiate traffic and respond to an emergency situation. Emergency vehicles include, but are not limited to, fire and rescue trucks, ambulances, law enforcement vehicles, Federal Protective Service and Coast Guard Investigative Services vehicles, Commandant Staff vehicles, and response vehicles.

Fleet Managers
A designated EPA employee that is responsible for coordinating the steps to verify that personnel possess valid driver's licenses before permitting use of GOVs, coordinating with SHEMP managers the steps and reports necessary for accident reporting and coordinating proper maintenance of all EPA owned and leased vehicles under their supervision. Fleet Managers may delegate certain responsibilities to local Vehicle Coordinators.

General Purpose Vehicles
A motor vehicle with a Gross Vehicle Weight Rating (GVWR) for less than 8,501 pounds.

Motor Vehicle
Any vehicle, self-propelled or drawn by mechanical power, designed and operated principally, but not exclusively, for highway transportation of property or passengers.

Passenger Vehicles
Passenger vehicles are sedans, station wagons, Sport Utility Vehicles (SUV), any passenger van (vans equipped with seating for more than 2 individuals), buses and ambulances and include any law enforcement vehicle as described above. Note: passenger vehicles have additional procurement restrictions.

Snowcat
A snowcat is an enclosed-cab, truck-sized, fully tracked vehicle designed to move on snow.

Snowmobile
A snowmobile, also known as a snowmachine, is a vehicle designed for winter travel and recreation on snow. It is designed to be operated on snow and ice and does not require a road or trail but most are driven on open terrain or trails.

Trailers
Non-motorized equipment with wheels designed to be pulled over public roadways by motor vehicles.

Utility Task Vehicle (UTV)
The Side by Side (often written as "SxS") is a small 2-6-person four-wheel drive off-road vehicle, also called a ROV (Recreational Off-Highway Vehicle) or a MOHUV (Multipurpose Off-Highway Utility Vehicle