



Emergency Route Working Group (ERWG) Report of Recommendations to the Secretary of Transportation

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Submitted to:
FHWA Office of Freight
Management and Operations

Submitted by:
ICF, on behalf of the Emergency
Route Working Group



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Terms of Reference

For the purposes of this report, the following abbreviations, acronyms, and definitions are defined below.

AASHTO – American Association of State Highway and Transportation Officials

Automated Permit System – An automated permit system is one in which you can apply online and receive a permit. States vary in their degree of automation. Some States may still have State officials review most permits that are submitted electronically. Auto-issue permit systems are a subset of automated permitting systems. States with auto-issue permit systems automatically issue permits to most applicants online within a few minutes, without manual oversight from a person. Extremely large or heavy loads are likely to require manual review by permitting officials.

CMV – Commercial Motor Vehicle

Conforming Vehicle – A vehicle of standard dimensions and weight that does not require a special oversize or overweight permit.

Convoy - A group of vehicles travelling together. One reason to operate in a convoy is to facilitate expedited inspection and enforcement procedures to reduce delays.

DOT – Department of Transportation

Emergency Responder (also Responder) – Any entity, including utilities, freight carriers, Federal, State, and local governmental and nongovernmental emergency public safety personnel that provide relief services to assist with the immediate restoration of essential services (such as, electricity, medical care, sewer, water, telecommunications, and telecommunication transmissions) or essential supplies (such as, food, fuel and medicine) after an emergency.¹

Emergency Response and Recovery – This includes a broad set of activities involved with both the response – the immediate restoration of essential services and the broader recovery activities that will restore a community or region back to a normal or better (more resilient) State.

ERWG – Emergency Route Working Group

Infrastructure Repair Materials - Includes anything needed during the recovery process to repair infrastructure, including utility service vehicles, crews, poles, transformers, generators, asphalt, sand and gravel, etc.

FACA – Federal Advisory Committee Act

FAST Act – Fixing America’s Surface Transportation Act

FEMA – Federal Emergency Management Agency

FHWA – Federal Highway Administration

FMCSA – Federal Motor Carrier Safety Administration

HAZMAT – Hazardous Materials

¹ This definition is drawn in part from the definition of direct assistance in Part 49 CFR 390.5. and the definition of emergency responder in 6 U.S. Code § 101 – Definitions.

HOLPP – Highway Over-Dimensional Loads Pinch Points

IFTA – International Fuel Tax Agreement is an agreement between the [lower 48 States](#) of the [United States](#) and the [Canadian provinces](#), to simplify the reporting of fuel use by motor carriers that operate in more than one jurisdiction. Alaska, Hawaii, and the [Canadian territories](#) do not participate. An operating carrier with IFTA receives an IFTA license and two decals for each qualifying vehicle it operates. The carrier files a quarterly [fuel tax](#) report. This report is used to determine the net tax or refund due and to redistribute taxes from collecting States to States that it is due.

IRP – International Registration Plan is a registration reciprocity agreement among States of the United States, the District of Columbia and provinces of Canada providing for payment of apportionable fees based on total distance operated in all jurisdictions.

ITAP – Illinois Transportation Automated Permitting (ITAP) is authorized by the Illinois Vehicle Code (625 ILCS 5/15 – 301) and the 92 Illinois Administrative Code 554, Sub-chapter F, with respect to highways under its jurisdiction that Illinois DOT may, at their discretion, upon application and good cause being shown therefore, issue special permits authorizing the applicant to operate or move a vehicle or combination of vehicles of a size or weight of vehicle or load exceeding the maximum specified in this Act or otherwise not in conformity with this Act upon any highway under the jurisdiction of the State of Illinois. An Oversize/Overweight permit is required, when a vehicle or load exceeds legal sizes and weights, and is to be moved upon or across a highway for which the State is responsible. Permit applications are reviewed for bridge tolerances, construction zones, height clearance and several other safety concerns. The new ITAP system allows customers to go online and apply. Most permits are immediately issued. Oftentimes, in order to complete your move, roads NOT authorized to be permitted by Illinois DOT may be necessary. In all such cases involving local jurisdiction roads, permittees MUST obtain permission from appropriate local authorities prior to movement.

Local Emergency - Under Federal regulations (49 CFR 390.23 A2) governors or local officials can declare a local emergency for five days.

Motor Carrier - A person or entity engaged in the transportation of property or passengers for compensation.

Mutual Aid Agreements - Mutual aid agreements and assistance agreements are agreements between agencies, organizations, and jurisdictions that provide a mechanism to quickly obtain emergency assistance in the form of personnel, equipment, materials, and other associated services. The primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and after an incident. A signed agreement does not obligate the provision or receipt of aid, but rather provides a tool for use should the incident dictate a need.

NCHRP – National Cooperative Highway Research Program

NWPA – New West Partnership Agreement; procurement provisions under this Agreement increase opportunities for British Columbia, Alberta, Saskatchewan and Manitoba companies by lowering thresholds for goods, services and construction purchasing. In addition, the Agreement covers a number of services currently excluded from the Agreement on Internal Trade and helps reduce costs to government by increasing competition.

OS/OW – Oversize / Overweight

Permit – This report refers to several different types of permits. States issue oversize and overweight permits that allow vehicles to exceed statutory restrictions on maximum vehicle weight or dimensions (height, width, length), if the vehicle uses a particular route and adheres to other requirements (use of placards, escort vehicles or other requirements as specified). IFTA and IRP trip permits are also required for vehicles that are not registered under these programs.

Pre-deployment Phase – Prior to an emergency, utilities, emergency management agencies and others may pre-position equipment, personnel and supplies when it becomes clear that there could be a major weather event or some other type of disaster.

Recovery Phase - Includes actions taken to return to a normal or an even safer situation following an emergency. Investments in rebuilding infrastructure may take longer and be considered part of the recovery effort.

Redeployment Phase - Equipment may be re-deployed to address the emergency needs of another area once it has finished its work in one area. The location and timing of the redeployment may evolve as the needs on the ground change.

Response Phase – Response actions carried out immediately during, and after an emergency are aimed at saving lives, reducing economic losses, and alleviating suffering. There is an urgent need to address the most critical issues first. These might include delivery of emergency medical supplies, water and food. There may also be an immediate need to restore power or other critical infrastructure as quickly if possible.

Return Phase - When the recovery process is extensive, equipment may need to be repositioned long after the emergency has occurred and after emergency waivers have expired. Many restoration efforts and repairs must wait until customers are ready to receive the aid causing some utility service vehicles to delay their return.

SCOHT - Subcommittee on Highway Transport

Special Permit - The legal dimensions and weights vary between States and jurisdictions. A vehicle that exceeds the legal dimensions or weights usually requires a special permit that requires extra fees to be paid in order for the oversize/overweight vehicle to legally travel on the roadways.

Stafford Act Declaration – When disaster response is beyond the capabilities of the State and the local governments, Governors may make a request for a declaration by the President that a major disaster exists and request Federal assistance under the Stafford Act. The Stafford Act authorizes two types of disaster declarations, emergency declarations and major disaster declarations. Both declaration types authorize the President to provide supplemental Federal disaster assistance. However, the events related to the two different types of declaration, the scope and amount of assistance differ.

Statewide Emergency - Under Federal regulations (49 CFR 390.23) governors can declare a Statewide emergency for 30 days.

Utility Service Vehicle – A utility service vehicle (USV) is “a CMV used in the furtherance of repairing, maintaining, or operating any structures or any other physical facilities necessary for the delivery of public utility services, including the furnishing of electric, gas, water, sanitary sewer, telephone, and television cable or community antenna service; and while engaged in any activity necessarily related to the ultimate delivery of such public utility services to consumers,

including travel or movement to, from, upon, or between activity sites (including occasional travel or movement outside the service area necessitated by any utility emergency as determined by the utility provider); and except for any occasional emergency use, operated primarily within the service area of a utility's subscribers or consumers, without regard to whether the vehicle is owned, leased, or rented by the utility.”²

Waiver – A waiver provides a limited exemption to a legal or regulatory requirement, such as the temporary suspension of the vehicle or hours of service requirements for drivers that occur during a declared emergency.

² Based on 49 CFR 395.2 definition of a utility service vehicle

I. Introduction

In December 2015, Congress enacted the transportation authorization law entitled “Fixing America’s Surface Transportation (FAST) Act.” Section 5502 of the FAST Act (Public Law 111-38) requires the U.S. Department of Transportation (DOT) to create an Emergency Route Working Group (ERWG). The ERWG is required to provide the Secretary of Transportation advice and recommendations for the implementation of best practices for expeditious State approval of permits for vehicles involved in emergency response and recovery. As specifically outlined in Section 5502(b) of the FAST Act, in determining best practices the group was required to consider whether:

- a) impediments currently exist that prevent expeditious State approval of special permits for vehicles involved in emergency response and recovery;
- b) it is possible to pre-identify and establish emergency routes between States through which infrastructure repair materials could be delivered following a natural disaster or emergency;
- c) a State could pre-designate an emergency route as a certified emergency route if a motor vehicle that exceeds the otherwise applicable Federal and State truck length or width limits may safely operate along such route during periods of declared emergency and recovery from such periods; and
- d) an online map could be created to identify each pre-designated emergency route, including information on specific limitations, obligations, and notification requirements along that route.

The DOT established the ERWG through the Federal Advisory Committee Act (FACA). The Secretary of Transportation approved the charter to establish the ERWG as a Federal advisory committee on July 25, 2016. The charter is written to accomplish the work through the Federal Highway Administrator on behalf of the Secretary. While Section 5502 does not explicitly call for the creation of a formal Federal advisory committee, the group was established through the FACA to enable consultation with outside groups for advice in developing a report on best practices for expeditious State approval of special permits for vehicles involved in emergency response and recovery and to ensure Congress and the public remain informed of the purpose, membership, and activities of the ERWG. The ERWG will terminate 1 year after the date the Secretary receives this report.

Additional information on the ERWG, including the charter, membership roster, and minutes for meeting of the group can be accessed at <https://ops.fhwa.dot.gov/fastact/erwg/index.htm>. The primary outreach method for soliciting membership for the ERWG was through a Federal Register notice published on August 24, 2016. In addition, there was direct outreach and coordination with the following groups as identified in the ERWG charter:

- American Association of State Highway and Transportation Officials (AASHTO);
- Federal Emergency Management Agency;
- Edison Electric Institute;
- American Public Power Association;
- American Public Works Association;
- National Rural Electric Cooperative Association;

- National Utility Contractors Association; and
- Electric Power Supply Association.

The ERWG has 21 members and as required by law, the group includes representation from State highway transportation departments or agencies, relevant modal agencies within DOT, emergency response or recovery experts; relevant safety groups; and entities affected by special permit restrictions during emergency response and recovery efforts (e.g., gas and the electric utility organization). During the deliberations of the committee, it became clear that outreach was needed with the organizations overseeing the International Registration Plan (IRP) and the International Fuel Tax Assessment (IFTA). These organizations were contacted to obtain input on the committee's recommendations.

There are three requirements and deliverables related to the ERWG:

- (1) A report to the Secretary of Transportation on the ERWG findings and any recommendations for the implementation of best practices for expeditious State approval of special permits for vehicles involved in emergency response and recovery;
- (2) Not later than 30 days after the date the Secretary receives the abovementioned report, the Secretary is required to publish the report on a publicly accessible Internet Web site of the Department; and
- (3) Not later than 6 months after the date the Secretary receives the abovementioned report), the Secretary is required to notify the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the actions the Secretary and the States have taken to implement the recommendations included in the report.

This document fulfills the requirement for the ERWG to submit a report to the Secretary of Transportation on its findings and any recommendations for the implementation of best practices for expeditious State approval of special permits for vehicles involved in emergency response and recovery.

During the deliberations of the committee, several important impediments to emergency routing were identified that were not explicitly mentioned in the charge questions identified in the FAST Act. It was noted that delays in obtaining IRP and IFTA trip permits caused many delays for vehicles responding to emergencies. In addition, getting through weigh stations and toll booths were other sources of significant delay. The routing problems faced by emergency responders were also different depending on the size of the emergency, what phase of emergency response the vehicle was deployed in (pre-deployment, response, recovery) and the type of vehicle. The committee discussed solutions to these issues as well.

1. Purpose and Need

Emergency response and recovery activities for an event in the United States is dependent on the expeditious movement of utility service vehicles and other trucks, emergency supplies, medicine, food, fuel, and infrastructure repair materials into the affected area. Emergencies can require the coordination of responders throughout the country, including Alaska, Hawaii and the U.S. territories. Emergency response can also span international borders; for example, utility companies can provide assistance across the U.S. Northern and Southern borders. There is a

need to pre-position and move equipment, clear debris, fix downed power lines, and rebuild infrastructure. Immediately before, during, and after a declared emergency, an increased number of oversized and overweight loads require expedited permits to travel to the affected area. Equipment or vehicles may be coming from far away and need to move through multiple States, both with and without declared emergencies (pass through States). Some of these States may be unaware of the emergency. Obtaining permits from multiple agencies can cause delays. Delays in issuing permits in a single State can delay the permitting for an entire trip. During an emergency, equipment may need to be repositioned as the response and recovery efforts evolve. Additional permits could be required for these new routes.

Oversize Permits

Pole trucks, oversize bucket trucks, cranes, and other equipment owned by utilities or their contractors may require oversize permits for interstate operation.

Construction equipment used to clear debris, temporary housing units, transformers, or other relief equipment and supplies may also require oversize permits. A lack of automation in some State permitting systems is the largest impediment to timely access to oversize/over dimensional permits for emergency response. Many States do not have



automated permit systems and require manual processing of permit applications during regular business hours. If an emergency occurs over a weekend or a holiday, applicants must wait until the permit office opens to obtain their permits. Additional delays during business hours could occur if the permit office is busy.

Oversize loads are defined by rules for the length, width and height of the vehicle. The Federal standard width for regular size loads is 8 feet, 6 inches (102 inches) on the national network. Length limits are determined by the States, with a minimum Federal limit set at 48 feet. There is no Federal height requirement for trucks and States set their own height restrictions. Most height limits range from 13 feet, 6 inches to 14 feet. Vehicles with dimensions in excess of the legal limits must obtain a permit.

Permitting offices use software to map out a route that a vehicle of specific dimensions can safely use. Routing needs to consider turning radius restrictions at intersections, vertical clearances, horizontal clearances, and other factors. Routing also needs to take into account any construction, road closures, or special events that may limit the use of specific routes. Permits would include requirements for signage, lighting, hours, or days of operation restrictions. Permitting a route across multiple States requires that all of these factors must be considered in each State and a continuous route mapped across all State and other jurisdictional lines.

Lack of harmonization in the regulations for movement of oversize loads may cause additional delays and can make a timely emergency response difficult. The process of permitting varies significantly by State, with each State responsible for developing their own unique rules and requirements. Some States require permits from multiple local agencies, while others integrate the process across the State. Beyond the processing differences, States also vary their driving and permitting requirements.

States have different regulations with respect to the duration of permits. Some States do not have consistent regulations with respect to allowable days and hours for movement of oversize loads. Nonetheless, a recent AASHTO survey showed that about 70 percent of States surveyed had harmonized the days and hours of operation.

The AASHTO Subcommittee on Highway Transport (SCOHT) and the States have made great progress in harmonizing regulations with respect to escort requirements, warning flag requirements, warning sign requirements, and warning light requirements, with over 89 percent of States surveyed saying they had adopted AASHTO standards with regard to each of these. While AASHTO's harmonization efforts are voluntary, most States have implemented the recommended regulations with respect to these items.

More work still needs to be done with respect to harmonization. States also vary with respect to the number of days before a move that a permit can be applied for and the rules for amending permits if a route changes. States also have different emergency declaration waiver procedures, emergency permits, and wording for permit waivers. Some differences in State permitting requirements continue to complicate interstate movement of oversize and overweight vehicles. Expedited and timely emergency permitting procedures are used by only some States.

Overweight Permits

There is often a need to move overweight loads to help with emergency response and recovery efforts. Overweight loads could include transformers, temporary housing units, and other critical supplies. In some cases, utility service vehicles engaged in emergency response and recovery efforts may be loaded with equipment and supplies to deal with any contingency, and some of these vehicles could exceed the weight limit.

Vehicles that exceed Federal and State limits must apply for special permits to travel through each State and, in many cases, there are additional permits for local jurisdictions and for the use of specific bridges. State permitting offices use software to determine a safe route that accounts for the load limitations of roadways and bridges. To protect bridges, the weight of individual axles and the spacing of axles carrying the vehicle load must be provided by the carrier. The bridge weight formula is also applied to commercial vehicles in determining their compliance.

Similar to oversize permits, overweight permits must be obtained from each State and jurisdiction through which the route passes. Delays in permitting in any State or jurisdiction can delay the permitting of the overall route. A lack of automation in permit systems in some States may make it impossible to obtain permits during non-business hours or on weekends or holidays.

In general, the lack of automation for State oversize and overweight permit application processes causes delays in emergency response. These delays can be compounded by the overall complexity of oversize/overweight (OS/OW) permitting regulations and the difficulties that emergency managers have in managing these requirements. Issues related to permitting were particularly apparent during the response to Super Storm Sandy. Following the disaster, it was imperative to transport both OS/OW vehicles through the affected area. Transport was needed for a myriad of reasons, including securing equipment and job sites, bringing relief equipment and supplies to damaged areas, and debris removal. While most States in the

affected area did have emergency plans that included how OS/OW permitting fit into their broader emergency response activities, most were not prepared to coordinate with other emergency response activities. Only one State in the area, Rhode Island, had a permit manager in their emergency response center. In most States, there was a need for a better approach to have access and a process for timely communication between emergency operations centers and permitting officials. Additionally, the permit requirements in the many affected States varied significantly. There was no harmonization in permitting practices, in declared emergency language, nor in interpretation of Federal regulations related to permitting.³ For instance, there was an inability to issue a permit for a divisible load because of a lack of grandfathered rights.

IRP and IFTA Permits

During an emergency response and recovery effort, power and utility companies more frequently operate across State or other jurisdictional boundaries to provide mutual aid. In most cases equipment owned by utilities are of standard legal size and weight, and allowed to operate freely in intrastate operation. These vehicles may not be registered to operate across State lines and thus may lack the appropriate IRP and IFTA registrations. Utilities are required to obtain IRP and IFTA trip permits to drive these vehicles across State lines. The ERWG estimated that most of the permitting challenges faced by utilities and others providing mutual aid can be attributed to delays in obtaining IRP and IFTA trip permits. While some utilities responding to an emergency may apply for these permits and begin travelling before the permits have been received, this exposes them to the risk of being delayed at an enforcement stop because they lack the proper paperwork.

Typically, there are greater delays associated with applications for State oversize and overweight permits, but there are a greater number of vehicles affected by the requirement to obtain IFTA and IRP trip permits. The response to Hurricane Harvey and Hurricane Irma has highlighted positive actions that States can take to improve emergency response and recovery efforts. The widespread awareness of these large hurricanes led the following States to waive IRP or IFTA requirements (or both) in late August and September: Texas, Florida, Nevada, Alabama, Kansas, Kentucky, Virginia, Tennessee, Maryland, Iowa, North Carolina, Delaware, Wisconsin, Arizona, Indiana, Georgia, Arkansas, Nebraska, Illinois, New Jersey, South Carolina, District of Columbia, Missouri and Delaware. The scale of these events and the fact that they occurred so closely together led many States to act quickly to remove impediments to emergency response. Many utilities and other responders applauded the fact that response was much smoother for these events than smaller scale events in the past that did not raise the same level of awareness.

³ I-95 Corridor Coalition and National Association of State Transportation Officials. "NASTO/I-95 Corridor Coalition Hurricane Sandy After Action Review (AAR) Summary of Findings Final Report." I-95 Corridor Coalition. January 2013.

Enforcement Delays

Some vehicles experience delays at weigh stations while vehicles are inspected. Enforcement efforts are often focused on utility service vehicles without proper DOT registration, IFTA trip permits, IRP trip permits, or proper OS/OW vehicle permits. In many cases utility and other vehicles responding to emergencies have applied for IRP, IFTA, or OS/OW permits, but they have not been issued yet. Convoys of utility service vehicles and other trucks are thus often stopped at the border of a State by inspection officials who require all CMVs to pass through weigh stations or other inspection facilities. During these inspections, further delays are created by identified deficiencies in registration and permitting for these vehicles. In major national emergencies, officers may be aware of the event and use their enforcement discretion to expedite the movement of vehicles. In smaller scale emergencies, where vehicles may be passing through States to respond to an emergency in another State, there may be less awareness of the event among enforcement officers and delays are more likely for these events.

Even when emergency responders have access to emergency permits or waivers, they may not be recognized as valid by enforcement officers. Often, emergency responders run into problems when they are both traveling to an emergency area and when they are returning home. Enforcement officials may be unaware of smaller emergencies occurring in other States. For example, an operations manager from a utility company in one city noted that he recently had crews delayed when trying to move across State lines during a declared emergency. In several instances, enforcement officials at weigh stations have been poorly informed, requiring several calls to the State DOT before trucks were allowed to pass through. On return trips, he noted, emergency declarations have expired, meaning the fleet must get other permits or extensions to return home.

Best Practices from Florida's Response to Hurricane Irma

- **Toll Suspension:** During Hurricane Irma, the Governor of Florida suspended tolls to facilitate movement beginning on September 5 and they were not reinstated in most areas until September 21.
- **Weigh Station Bypass:** Emergency response utility service vehicles (i.e. bucket trucks, etc.) responding to Hurricane Irma were given authorization to bypass all State-owned weigh station facilities until October 3. Many surrounding States also implemented weigh station bypass, facilitating the provision of mutual aid.

Tolls

Another major delay issue seen during Super Storm Sandy was that toll road operators require that trucks without an electronic transponder pay in cash. Some utility vehicle drivers were from areas of the country where they do not have toll roads. There was a lack of information on toll Websites to tell drivers what they needed to do. Since the tolls were over \$100 at some tolling stations for trucks, drivers often did not have sufficient cash with them. There were no procedures for expediting emergency equipment travel. Many trucks were delayed until they could obtain the necessary cash to pass through the toll. Some toll booths were unstaffed, so in these cases there was no one available to work on a solution.

Impact of Delays

The cumulative impact of delays from all sources, including OS/OW permitting, IFTA/IRP permitting, enforcement stops and tolls can be significant. As convoys of utility service vehicles and trucks carrying infrastructure repair materials are delayed for hours or even days waiting for permitting issues to be resolved, the work of restoring power to affected areas is not being done. This can reduce the effectiveness of other emergency responders. Fuel stations without power are unable to distribute fuel to vehicles responding to the emergency. Cell phone towers may stop working. Backup generators powering key facilities such as emergency operations centers, hospitals, or other locations may exhaust their fuel supplies. Thousands of customers may lack access to communications, heat, and power during a time of crisis. Senior citizens and others may be particularly vulnerable to a loss of heat and air conditioning caused by a loss of power, as in the cases of Hurricane Harvey and Super Storm Sandy, described in the text box above, show.⁴ The longer power failures persist, the greater the danger that failure in secondary systems such as fuel distribution, water treatment, pipelines, and other critical infrastructure will cause bigger problems. Most grocery stores lack backup power, making supplies of refrigerated and frozen food an early casualty of a power failure. The

Human Health Impacts of the Loss of Power

Hurricane Harvey was responsible for over 60 deaths. Several elderly people in a handful of counties were reported as Harvey-related deaths when medical equipment such as oxygen tanks lost power.

Super Storm Sandy directly caused the deaths of 72 people in the United States. Sandy indirectly caused the death of another 87 people, 50 of which were attributed to power outages. Numerous senior citizens without heat died from hypothermia while other victims died of carbon monoxide poisoning due to improperly vented generators.

Economic Impact of Power Outages

One economic study of power interruptions estimated that a sustained power interruption costs a residential customer \$2.99 per hour, a commercial customer \$1,067 per hour and an industrial customer \$4,227 per hour. The cost of a 1 day delay in getting the power back on for just 15,000 residential customers is over \$1 million. As one utility executive noted, "You won't change how fast a utility crew sets a pole, but you can change how fast they get there."

⁴ Economic Benefits of Increasing Electric Grid Resilience to Weather Outages. Executive Office of the President, 2013, https://energy.gov/sites/prod/files/2013/08/f2/Grid%20Resiliency%20Report_FINAL.pdf

economic impact of a power outage adds up quickly with each hour power restoration is delayed as shown in the text box above.⁵

The delays in trucking caused by OS/OW permitting, IRP/IFTA trip permitting, toll road access, and roadside enforcement challenges can also be life threatening if they persist. Commercial motor vehicles supporting an emergency response and recovery effort are imperative for getting communities back on their feet. A report by the American Trucking Association, *When Trucks Stop, America Stops*, lists the negative impacts of decreased truck service following an emergency. Trucks are needed to resupply the chemicals required to treat drinking water. Supplies of water can run out within as little as 2 weeks without resupply. Fuel is needed to keep emergency vehicles operating and people and supplies moving. Service station fuel supplies will run out within 2 days without additional deliveries, often sooner when there is a rush to get fuel during an emergency. Hospitals and nursing homes can exhaust their food supply within 24 hours. Hospitals can also run out of critical medicines and lifesaving medical supplies if not resupplied.⁶ Impediments to truck traffic can increase the number of lives at risk following an emergency. The table below shows the different types of vehicles used in emergency response and their role.

Equipment Used in Emergency Response

Vehicle Type	Emergency Response Role
Utility Service Vehicle – Aerial Device, Bucket, Digger Derick, Material Handlers	Restoration of electrical services and telecommunications
Tow and Recovery Vehicles	Clear roadways of disabled vehicles
Tractor Semi-Trailer	
Dry Van	Delivery of critical basic goods - water, food, medicine, other
Hazmat Tank Truck - Delivery	Delivery of fuel and chemicals (e.g. water treatment chemicals)
Hazmat – Removal	Removal of hazardous waste produced by emergency event
Tank Truck- Non-Hazmat	Transport of water
Flatbed/Specialized	Delivery of large equipment/infrastructure (e.g. power poles, bulldozers, front loaders, generators, cranes)
Refrigerated	Delivery of food/ice/medicine that is temperature sensitive
Bulk Transporter	Delivery of bulk materials (e.g. sand, gravel)

⁵ Understanding the Cost of Power Interruptions to U.S. Electricity Consumers. Ernest Orlando Lawrence Berkeley National Laboratory <https://emp.lbl.gov/sites/all/files/lbnl-55718.pdf>

⁶ American Trucking Association. *When Trucking Stops, America Stops*.

Vehicle Type	Emergency Response Role
<i>Straight Truck</i>	
Dry Van	Delivery of critical goods - water, food, medicine, other
Refrigerated	Delivery of food/ice/medicine that is temperature sensitive

Even in smaller scale disasters, permitting issues can cause delays and the cost to utilities can be substantial. For example, on February 29, 2012, an EF2 tornado went through Branson, Missouri. The tornado damaged several businesses, injured 31 people, and caused 6,500 electric outages at the peak of the storm. Restoration delays were caused due to materials and supplies being stopped at State lines. Several trucks with poles (no longer than 75') were stopped at the Missouri State line on the way from Minnesota, due to the emergency declaration not applying to commercial for-hire vehicle, but only to utility service vehicles. Approximately 100 crews had been brought in to support the electrical restoration and paid to work 16 hours per day. A delay of 1 day in receiving the utility poles resulted in an additional \$393,000 in labor costs alone, and additional economic costs to customers whose power restoration was delayed.

2. Analysis

2.1 Activities of the Committee

To comply with Section 5502 of the FAST Act, DOT established the ERWG as a Federal Advisory Committee on August 24, 2016. The ERWG members were required to include representation from State highway transportation departments or agencies; relevant modal agencies within DOT; emergency response or recovery experts; relevant safety groups; and entities affected by special permit restrictions during emergency response and recovery efforts. Per the charter, the ERWG membership would comprise no more than 25 members to serve for a 2-year term.⁷

The ERWG conducted in-person meetings at DOT Headquarters on January 9, February 16, May 10-11, June 27-28, August 8-9, and September 27-28 in 2017. At these meetings, committee members discussed the charge questions as well as the recommendations included in this report. Outside of the work conducted during the in-person committee meetings, members of the ERWG also participated in outreach to stakeholder groups to ensure well-rounded discussion and recommendations.

A literature review of best practices was conducted. During deliberations, the committee added to this list of potential solutions to the emergency routing problem. The solutions identified included the following:

- Emergency road use permits (as seen in Florida and other States);
- Harmonization of language in emergency declarations as it pertains to waivers;
- Utility and pole truck length exemptions;

⁷ A full list of ERWG members is available on the committee website and in Appendix C (<https://ops.fhwa.dot.gov/fastact/erwg/membership.htm>).

- Automated permitting;
- Harmonization of permitting practices;
- Interstate jurisdictional coordination;
- Improved communications with stakeholders; and
- Development of formal regional communication.

In addition to existing best practices at the State level, the committee also discussed existing legal exemptions at the Federal level that are relevant to emergency routing. These included FMCSA regulation 390.23 that allows 49 CFR parts 390-399 waivers. These waivers are put in place to provide vital supplies and transportation services to a disaster area. Waivers can be triggered by emergency declarations issued by the President, State Governors, FMCSA, or a local official. These declarations allow for the temporary suspension of certain Federal safety regulations including hours of service, driver qualifications, and DOT numbers for motor carriers and drivers engaged in specific aspects of the emergency relief effort. Relief from Federal Motor Carrier Safety Regulations is limited to a maximum of 30 days, unless extended by FMCSA.

MAP-21 Section 1511 provides additional authority and flexibility for States in OS/OW permitting during periods of emergency. Section 127 of title 23, U.S.C., establishes weight limitations for vehicles operating on the Interstate System. Those maximum weight limitations are as follows: single axle – 20,000 lbs.; tandem axle – 34,000 lbs.; and gross weight – 80,000 lbs. (or the maximum allowed by Federal Bridge Formula B). Section 127 States that the overall gross weight may not exceed 80,000 lbs., including all enforcement tolerances, except for those vehicles and loads which cannot be easily dismantled or divided and which have been issued Special Permits in accordance with applicable State laws. There are several other exceptions provided by law. This language establishes the States' authority to issue Special Permits to "non-divisible" loads on the interstate highway system. Examples of non-divisible loads include bulldozers, large generators, scrapers, and modular homes.

Section 1511 of MAP-21 extends the States' authority to issue Special Permits to vehicles with divisible loads that are delivering relief supplies⁸ during a Presidentially-declared emergency or major disaster under the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act") (42 U.S.C. 5121 et seq.). ERWG members argued that it would positively impact emergency response and recovery efforts for Congress to expand the coverage of the Section 1511 provision to emergencies declared by a Governor of a State. Currently States cannot provide permits to divisible loads on the interstates in most emergencies. Most emergencies are not "Stafford Act events" that have a national scope.

The committee deliberated on how the issues with emergency routing depended on the type of emergency routing problem, phase of the emergency, and scale of the emergency. The following tables segment the problem by the types of problems encountered, the phase of the emergency, and the scale of the emergency. The specific problems encountered along each of these dimensions differ, although there are many commonalities among these problem segments. The following tables describe the problem segments, emergency response, and recovery phases and scales of emergency and identify some of the issues associated with

⁸ For purposes of Section 1511, relief supplies may include, but are not limited to: medicine and medical equipment; food supplies (including feed for livestock); water; materials used to provide or construct temporary housing; and other supplies directly supporting the type of relief needed following a disaster.

each. The ERWG specifically considered problems and solutions in each phase of the emergency response and recovery process.

Types of Emergency Routing Problems

Type of Emergency Routing Problems	Description
Standard vehicles that typically only operate intrastate	<p>Small utility service vehicles or other standard sized vehicles may typically operate only intrastate. When there is a need for these vehicles to operate across State lines, they may not have the proper registration stickers for the IIRP and International Fuel Tax Agreement IFTA. Vehicles operating in interstate commerce also need to obtain a motor carrier identification number. These requirements most frequently impact the responding utility service vehicles that experience delays.</p> <p>In addition, trucks traveling to provide aid in an emergency may experience delays from inspections at weigh stations or delays at toll areas.</p> <p>While utility service vehicles traveling to an emergency are exempt from the Federal hours of service regulations, other trucks would need to comply with Federal rules for the number of hours a driver can drive and be on-duty, and the required rest breaks, unless there is a declared emergency.</p>
Oversize and overweight vehicles and cargos	<p>There are some vehicle dimensions, and configurations that are legal in certain States but not others, since State weight, height, width, and length regulations vary by State. For instance, some States provide exemptions for utility trucks transporting poles for instance, while others do not.</p> <p>Oversized equipment could include construction machines (cranes, front loaders, backhoes, etc.), oversized bucket trucks, and pole trucks. OS/OW permits need to be obtained from each State that an oversized vehicle passes through. Differences between States and delays in obtaining permits from multiple agencies can create impediments to moving vehicles and supplies during an emergency.</p>

Phases of Emergency Routing

Phases of Emergency Routing	Issues
Pre-deployment	<p>Agencies and organizations engaged in a response may wish to pre-position equipment when it becomes clear that there could be a major weather event or some other type of disaster, but before an emergency has been declared and any emergency waivers have been initiated.</p>
Response	<p>During a response event, there is an urgent need to address the most critical issues first. These might include delivery of emergency medical supplies, water and food. There may also be an immediate need to restore power or other critical infrastructure quickly if possible. Allowing emergency routing of vehicles could decrease response times by hours or days and prove very important to minimize impacts.</p>

Phases of Emergency Routing	Issues
Recovery	More significant damage to infrastructure could require longer term and larger scale efforts and investments. The recovery could stretch over a longer period and require the movement of infrastructure repair materials.
Return	When the recovery process is extensive, equipment may need to be repositioned long after the emergency has occurred and after emergency waivers have expired. Many restoration efforts and repairs must wait until customers are ready to receive the aid, causing some utility service vehicles to delay their return.
Redeployment	Equipment may also be re-deployed to address the emergency needs of another area once it has finished its work in one area. The location and timing of the re-deployment may evolve as the needs on the ground change.

Scale of Emergency

Scale of Emergency	Issues
Locally Declared	<p>Under Federal regulations (49 CFR 390.23) Governors and local officials can declare a local emergency for 5 days. National awareness of local disasters, such as small tornados, may be limited. Enforcement officials in surrounding regions or States may thus be unaware of waivers that have been issued, or less likely to use their enforcement discretion to facilitate the movement of vehicles.</p> <p>In addition, local emergencies are not Stafford Act declared emergencies, and thus are not eligible for the extended State authority to issue special permits that is provided for in MAP-21.</p> <p>Permitting agencies that are unaware of the urgency of a movement may require that oversize vehicles and shipments only move at certain hours of the day, or avoid traffic generated by special events.</p>
State Declared	Governors can issue declarations, executive orders, and waivers for their State and coordinate with Governors in surrounding States to issue similar waivers. Governors have authority to waive some FMCSA regulations, such as the hours of service regulations. Some Governors and State DOTs have authority to provide emergency OS/OW permits. Under Federal regulations, Governors can declare a statewide emergency for 30 days. In some cases, it may be easier to issue executive orders. Equipment moving from far away will still need to obtain the necessary permits from multiple States, and some States may be more accommodating than others.
Federally Declared	<p>Large-scale disasters create broad scale awareness of the need to expedite emergency response. In these cases, Federal and State emergency declarations can create an environment to expedite the movement of equipment for disaster response.</p> <p>MAP-21 extended State authority to issue special permits to vehicles with divisible loads that are delivering relief supplies during a presidentially-</p>

Scale of Emergency	Issues
	<p>declared emergency under the Stafford Disaster Relief and Emergency Assistance Act. Policymakers believe that there is a need to expedite the provision of these permits during an emergency.</p> <p>To provide transportation services to disaster areas, emergency declarations may be issued by the President, Governors of States, or FMCSA to waive some FMCSA regulations. These declarations trigger the temporary suspension of certain Federal safety regulations, including Hours of Service. These suspensions are limited to 30 days.</p> <p>Even with large-scale emergencies, there still can be significant impediments to coordinating movement of emergency supplies and equipment through multiple States.</p>

2.2 Response to Charge Questions

The FAST Act specified that the ERWG should consider at least the four following issues and questions. The committee’s response to each of the questions is provided below. The ERWG also considered issues and recommendations beyond the statutory questions.

Do impediments currently exist that prevent expeditious State approval of special permits for vehicles involved in emergency response and recovery?

- Yes, impediments currently do exist. One key impediment is that permits are often required from multiple States for OS/OW vehicles, and obtaining permitting for the entire route may be delayed by a single State. While approximately 30 States have automated permitting for oversize vehicles that allows a fleet to apply and receive a permit online for a dimensional envelope, the remaining States require manual processing of permits during business hours. If an emergency happens over the weekend or holiday, fleets must wait until the permitting office reopens. Additional delays during normal business hours would also likely occur if the permit office is busy.
- Obtaining IRP and IFTA trip permits, which are only required from a single base State, may also be an impediment if an emergency does not occur during business hours and a State’s permitting system is not automated. Many utility service vehicles responding to an emergency are of standard legal dimensions and weight, and do not require special OS/OW permits. These vehicles only require IFTA and IRP trip permits to operate across State lines. Timely access to permits could expedite the movement of these vehicles and their crews for emergency response and recovery and help organizations restore essential services faster in affected areas. One best practice is to include IRP and IFTA waivers as part of a standard emergency declaration.
- For all permits, vehicles that are pre-deployed before an emergency may need additional permits to redeploy to a different State if the impacts of the emergency are different than initially anticipated or if the vehicle needs to take a route different than the one their permit was issued for. Delays in obtaining these permits can slow the redeployment of equipment to where it is needed during the emergency. Additional delays can occur on the return trip, after a fleet has responded to an emergency.
- During a declared emergency, information is not always adequately spread to all enforcement officers. Delays can occur at State borders and weigh stations as vehicles

are stopped for routine enforcement and detained if they are missing the proper permits documents, waivers, or declarations in their vehicles.

Is it possible to pre-identify and establish emergency routes between States through which infrastructure repair materials could be delivered following a natural disaster or emergency?

- Yes, but the routes would need to be updated to reflect current conditions related to infrastructure changes, construction, and road closures before each use. If you create a size envelope that defines the dimensions of the vehicle and load, you can identify routes that can accommodate a particular size envelope. There is no national dataset that has all of the information that is needed. States will need to define the emergency routes for the roads in their States. This route will need to be updated before planning a trip to accommodate road closures that may occur, particularly in times of emergency. The map of routes could be linked to State 511 systems to accommodate the latest information with respect to road closures. Changes in infrastructure also need to be reflected with updates to the route map. For instance, routine bridge inspections may identify deficiencies in bridges that create restrictions. Route maps need to be updated with these new restrictions to stay current with existing conditions.
- It will be important to designate an agency responsible for maintaining the emergency routes, and communicating this information. The agency responsible for maintaining the routes and map will need to communicate with each State to update the routes.
- A pre-established route map should take connections to other modes and multimodal transportation movements into account.

Could a State pre-designate an emergency route as a certified emergency route if a motor vehicle that exceeds the otherwise applicable Federal and State truck length or width limits may safely operate along such route during periods of declared emergency, or during the recovery afterwards?

- Yes, but the route would need to be updated to reflect current conditions related to infrastructure changes, construction, and road closures before each use. States would need to define a length and width envelope that would be allowed to use the route. A route could be defined based on this envelope. The route would need to be updated before each use to account for construction zones, road closures, and other changes in infrastructure. Much of this information is available from 511 systems. States have already established routes, such as those for longer combination vehicles. Many States have designated auto-issue thresholds for width and length for permits. An emergency route network could be defined based on similar criteria.
- The vehicles allowed to use the network in an emergency would need to be defined. The right to use the network without a special permit would need to be triggered by an emergency declaration, executive order issued by the Governor, or blanket emergency permit issued by the State DOT. In some cases, the Governor or the State DOT may lack authority to do this currently, and action by the State legislature could be required to provide authority for this. Communication with enforcement officials on the ground is important so that they are aware that the right to use the emergency route by authorized vehicles has been triggered.

Could an online map be created to identify each pre-designated emergency route, including information on specific limitations, obligations, and notification requirements along that route?

- Yes, but the online map would need to be updated regularly to account for road closures and changes in infrastructure. The data for the map would need to come from the States. For the map to be useful, it must have an entity designated to maintain it that helps to standardize the data, ensure that it is kept up to date and ensure data quality. Currently 511 systems are not standardized, although all of them are required to have an ITS infrastructure.

3. Recommendations

In accordance with the FAST Act requirements, the committee presents the following seven recommendations to the Secretary of Transportation. The recommendations are also shown underneath the charge questions they are associated with. Note that some recommendations apply to more than one of these charge questions; a notation is made to indicate where this occurs.

Recommendations Regarding Charge Question 1: Do impediments currently exist that prevent expeditious State approval of special permits for vehicles involved in emergency response and recovery?

1. The Secretary should incentivize States to modernize their permitting systems to provide for auto-issue permitting so that permits are available 24/7. This would reduce delays in obtaining the necessary permits to move OS/OW vehicles in response to an emergency.
 - a. The Secretary should document which States have auto-issue permit systems (apply online and print out a permit), what the requirements for length and width are, and determine why some States do not have auto-issue systems. The Secretary should seek to identify what would incentivize States to adopt auto-issue permit systems.
 - b. The Secretary should work with AASHTO and others to encourage States to create emergency permits in their automated systems that reduce time restrictions and durations for permits.
 - c. The Secretary should add data fields to the National Bridge Inventory (NBI) to enhance permit automation and provide needed standardization. Additional items should include data fields for vertical and horizontal clearances of dual carriage ways underneath structures and should be incorporated into a future Rulemaking for the NBI program. The Secretary should ensure that adequate funding is available to the States to provide for the additional effort, and should work with AASHTO and other providers to modify software platforms to capture this additional data.
 - d. The Secretary should determine if modifications to the current National Bridge Inspection Program (NBIP) Data Quality program need to be made in order to relax routing restrictions imposed by States.
 - e. The Secretary should identify new potential funding mechanisms to implement and maintain automated permitting systems. Reducing or eliminating the State

match for existing funding programs could also be used to incentivize States to invest in automated permitting.

- f. The Secretary should work with AASHTO and other stakeholders to continue work on harmonization and standardization of OS/OW vehicle regulations to facilitate and expedite the issuance of permits during an emergency. The Secretary should work with States to encourage increases in the thresholds used for auto-issuing permits in automated systems. FHWA should request that States identify barriers to increasing thresholds. AASHTO should work with industry and States to create a goal for higher size and weight thresholds for auto issuing permits so that higher and consistent thresholds across States can allow more emergency vehicles to receive auto-issue permits.

Recommendations Regarding Charge Question 2: Is it possible to pre-identify and establish emergency routes between States through which infrastructure repair materials could be delivered following a natural disaster or emergency?

2. The Secretary should fund a study that examines a multi-State emergency route scenario for vehicles involved in emergency response and recovery. This study would test different scenarios for emergency response and identify how delays in permitting (over-length, over-width, IRP, IFTA), differences in regulations between States and vehicle routing would affect response times during an emergency. This study would be incorporated in a Federal Government national exercise program.

(Refer also to Recommendation 3 and Recommendation 4 described below.)

Recommendations Regarding Charge Question 3: Could a State pre-designate an emergency route as a certified emergency route if a motor vehicle that exceeds the otherwise applicable Federal and State truck length or width limits may safely operate along such route during periods of declared emergency, or during the recovery afterwards?

3. The Secretary should encourage the development of a pre-clearance process that pre-identifies a set of vehicles that are part of response and recovery. This process should pre-identify a convoy and provide the convoy with certain privileges that include expedited inspection or pass-through permission at weigh stations.
 - a. The Secretary should ask States to designate emergency corridors that over-size vehicles of certain width and length can use for emergencies to demonstrate the feasibility of this concept. The vehicle dimensions could be defined based on the most common oversized vehicles and loads used in emergency response, as is done in Florida.
 - b. The Secretary should ask States to designate emergency corridors that conforming vehicles could use in event of an emergency without special permits. Conforming vehicles engaged in response and recovery operations for an emergency and using the emergency route could receive expedited inspections or pass-through permission to expedite their passage through a State and to their ultimate destination.
4. The Secretary should study the feasibility of setting up a nationwide alert system (like an Amber Alert) to ensure State and local authorities are aware of the movement of emergency response convoys through their region. This should include pre-deployment,

deployment, redeployment, and return of responders to and from declared emergencies. Enforcement officials will more easily be able to take steps to expedite these vehicles through weigh station inspections or during other roadside inspections if they know in advance that they are coming. This will ensure that once an emergency is declared in one region, surrounding regions are notified consistent with the severity of the emergency.

(Refer also to Recommendation 2 discussed earlier.)

Recommendations Regarding Charge Question 4: Could an online map be created to identify each pre-designated emergency route, including information on specific limitations, obligations, and notification requirements along that route?

5. The Secretary should coordinate the development of an online resource with all relevant permitting and regulatory compliance information that can be accessed by those participating in emergency response and recovery operations (building on transportation.gov/emergency). In addition to providing original content, the Website would provide a resource that would integrate links to other sources as well. Items that could be included in this resource are an interactive map, traffic information, permitting information, available permit waivers, links to permitting Websites, 24/7 contact information for State DOTs and other items. The Website should be a one-stop shop for utilities, freight carriers, emergency management professionals and other responders to utilize during emergencies.
 - a. The Secretary should support the development of a guidebook on Federal regulations and their requirements for emergency response. This guidance manual would describe the waivers and exemptions that are provided for in the law and through various emergency declarations. It would be made available on the Website and serve as a resource for emergency responders and other stakeholders.
 - b. The Secretary should develop a checklist for utilities and others engaged in emergency response. The checklist would provide a list of actions needed to expedite movement of vehicles while ensuring compliance with all relevant permitting and regulatory requirements. This checklist should leverage existing resources such as materials developed by the All Hazards Consortium and the States.

Other Recommendations

The ERWG identified a few recommendations that are outside the direct control of the Secretary, but which could be influenced through collaboration and communication with other stakeholders. These recommendations are described below.

6. The Secretary should collaborate with external stakeholders to identify opportunities to reduce impediments to the movement of utility service vehicles for emergency response and recovery efforts.
 - a. The Secretary should facilitate collaboration between IRP, IFTA and utility representatives to discuss processes and procedures for obtaining permits and potential opportunities to improve emergency routing for utility service vehicles.

Solutions considered could include exemption of utility service vehicles, special plates, waivers, faster processing for trip permits, emergency permits, or other solutions.

- b. The Secretary shall convene a meeting with industry associations such as the International Bridge, Tunnel and Turnpike Association to identify best practices for toll relief or expedited payment systems that speed up the movement of vehicles through tolls when these vehicles are responding to an emergency. The Secretary shall encourage the expedited implementation of nationwide interoperability of toll systems (such as E-ZPass, Sunpass). The Secretary will convene a meeting with E-ZPass, Sunpass and others to discuss solutions.
7. Currently, MAP-21, Section 1511 extends the States' authority to issue special permits to vehicles with divisible loads that are delivering relief supplies during a Presidentially-declared emergency or major disaster under the Stafford Act. The Secretary should inform Congress that expanding the coverage of the MAP 21, Section 1511 provision to emergencies declared by a Governor of a State would positively impact emergency response and recovery efforts.

Appendix A:

Best Practices and Other Noteworthy Activities

Best Practices and other Noteworthy Activities

Through the activities of the committee and research conducted as a result of the formation of the ERWG, a number of best practices and other noteworthy activities in emergency routing have been identified. These best practices and activities are described in the following table.

Best Practice	Description	Key Actors
<p>Florida Emergency Road Use Permit</p>	<p>Florida Executive Order 13-282 authorizes the Department of Transportation to relieve commercial vehicles transporting emergency equipment, services and supplies from normal restrictions on height, length, and width restrictions for such vehicles.</p> <p>The Florida DOT issues a letter online that provides an emergency permit. Maximum dimensions allowed are fourteen (14) feet wide, fourteen (14) feet, six (6) inches high and ninety-five (95) feet long. The user of this permit is still required to obey posted restrictions for bridges and like structures. The emergency permit also allows movement of the vehicle at any time of day.</p>	<p>Lead: State DOT</p>
<p>Utility and Pole Truck Length Exemptions</p>	<p>Minnesota Pole Truck Exemption - Public utility vehicles transporting poles that cannot be shortened, or truck transporting pole-length pulp woods can operate at lengths up to 75 feet.</p> <p>Florida Utility Truck Exemption – Florida law provides a length limitation exemption for “Utility vehicles owned or operated by governmental entities or public utility corporations, or operated under contract with such entities or corporations”. These allow the vehicle and load to be as much as 120 feet in overall length, provided proper flags and flashers are located at the rearmost end of the load. Florida law also provides the following exemption, “When transporting poles during emergencies or required maintenance. Such movements may be made on all days and at all hours, provided the respective daytime or nighttime requirements are otherwise met.”</p> <p>Wisconsin Utility Truck Exemption – Wisconsin law allows that vehicles may be operated without a permit for excessive length if the overall length does not exceed the indicated limitations of 120 feet for a 2-vehicle combination, used by a pipeline company or operator, public service corporation, municipal utility, or cooperative association...or by a motor carrier operating under contract with a pipeline company or operator, public service corporation, municipal utility, or cooperative association.</p> <p>Illinois Emergency Exemption for Utilities – Illinois law provides size and weight exemptions to vehicles operated by a public utility when transporting equipment required for</p>	<p>Lead: State legislatures, State DOTs</p>

Best Practice	Description	Key Actors
	<p>the emergency repair of public utility facilities or properties or water wells.</p> <p>Michigan 70-Foot Timber Hauler Length Exception – Timber haulers transporting saw logs, pulpwood, and tree length poles can move trailers or semitrailers up to 70 feet in length and may be operated on Designated routes, including National Network routes.</p>	
<p>Allowing Utility Convoys to Bypass Scales</p>	<p>Louisiana has procedures to allow scale bypass to facilitate response to emergencies. For example, in response to Hurricanes Irma and Harvey, enforcement officials issued a statement to utilities that allows bypass of scales for convoys of utility service when vehicles are in a convoy with their lights on. The importance of the crews reaching their destination safely and timely was deemed more critical than entering the scale facilities.</p>	<p>Lead: State DOTs, Enforcement Officials</p> <p>Supporting: Utilities</p>
<p>Harmonization of State Emergency Declaration Language</p>	<p>North Carolina, Virginia and DC (region 3) are coming up with common language and a template for emergency declarations. Agreement between States on basic wording for these agreements should make it easier for those engaged in emergency response and recovery efforts to understand what waivers and special provisions are being provided.</p>	<p>Lead: Governors Offices</p>
<p>Workbook of Emergency Declarations</p>	<p>The National Governors Association (NGA) is preparing a workbook for Governors on emergency declarations. This should help States to use common and more basic wording to describe the exemptions and other emergency powers provided by emergency declarations. This will help with the crafting of more efficient emergency declarations that can be more easily communicated with emergency management stakeholders.</p>	<p>Lead: NGA, Governors Offices</p>
<p>Harmonization of Permitting Practices</p>	<p>Making oversize transportation rules and permitting requirements more consistent between States can make it easier for transportation providers to take advantage of exemptions provided or obtain permits when needed.</p> <p>The Hurricane Sandy After Action Report found that even standardizing the language used and reducing the use of jargon would help. For instance, “waiver” was widely used by many agencies, but there was no consistent meaning.</p>	<p>Lead: FHWA, State DOTs</p> <p>Supporting: Utilities, transportation providers, local permitting agencies</p>
<p>Provide Information for Transportation</p>	<p>Preparation of information resources for transportation providers prior to an emergency could facilitate emergency permitting during and after a major event. The Hurricane</p>	<p>Lead: State DOT</p>

Best Practice	Description	Key Actors
Providers to Determine Eligibility for Waivers	Sandy After Action Report found that “another challenge was having the right mix of permits to cover emergency situations. In New Jersey, for example, staff ended up evaluating eight common size/weight/configuration scenarios and posting the results online so that carriers could ascertain if they would qualify for a fee and permit review waiver. Additional configurations were identified in coordination with the fuel industry in response to widespread fuel shortages across both New Jersey and lower New York. These experiences were complicated post-landfall, and additional preparation would have been beneficial.”	
Automated Permitting	Automated permitting significantly streamlines the permitting process. For example, ITAP Program has been identified as a model program. ITAP is an online system that allows carriers to login, apply for a permit, obtain routing and receive permission to move over State highways in minutes. In 2016, more than 230,000 permits were issued by the Illinois Department of Transportation, with 98.75% of those permits being fully automated. ⁹ The Specialized Carrier and Rigging Association has documented that 30 States have automated permitting systems. Even States that have automated systems may still have a significant share of permits issued manually.	Lead: Permitting Office
Develop Plans to Reduce Pinch Points	Identify pinch points and make investments over time to eliminate the highest priority pinch points. For example, the Oregon Freight Plan has a strategy to identify the pinch points for over dimension loads called the Highway Over-Dimension Loads Pinch Points Study. They use this study to plan improvements that make the routing of over dimensional loads easier in all cases, including during emergencies.	Lead: State DOT Supporting: Transportation Providers
Interstate Jurisdictional Coordination	States that route oversized loads may ignore constraints that occur across the State line in a neighboring State. For instance, a State DOT in one State may be unaware of planned construction in another State. Better and more formal communications with neighboring States can improve coordination of permitting and route planning with those States. The Canadian New West Partnership (NWP) is an example of a best practice. When one member province proposes a change to a regulation, all members are informed and have a chance to comment on the	Lead: AASHTO Support: Permitting Office

⁹ Illinois Truck Enforcement Association. <http://illinoistruckcops.org/?p=7813>

Best Practice	Description	Key Actors
	<p>regulation. AASHTO could play a role in improving coordination.</p> <p>(Source: NCHRP Report 830)</p>	
Integrate Local Permitting	<p>In some States, multiple agencies issue OS/OW permits – including State DOTs, bridge authorities and other transportation authorities. A number of States have pursued the integration of local OS/OW permits into their State permitting processes, whereby local permits are obtained through the State DOT. For example, local permits in Maryland are obtained from the Maryland DOT.</p> <p>(Source: NCHRP Report 830)</p>	<p>Lead: State DOT</p> <p>Supporting: Emergency management agencies (local, State), permitting offices</p>
Improve Communications with Stakeholders	<p>Illinois DOT was identified by NCHRP as a State example of best practices in communication.</p> <p>Illinois DOT's maintains an email list of 3,500 trucking and permitting individuals.</p> <p>Illinois DOT also uses its automated permitting program ITAP to convey information to the industry. The State DOT places important information on the ITAP home page, highlighting changes affecting OS/OW operations such as bridge postings and changes in regulations.</p> <p>Illinois DOT also maintains an interactive map called "Getting around Illinois," which includes roadway closures, limited clearances, weight restrictions, and construction affecting OS/OW operations. The interactive map is used by the industry to see the limitations they might encounter along an OS/OW route.</p> <p>(Source: NCHRP Report 830)</p>	<p>Lead: State DOT</p> <p>Supporting: Transportation providers, local permitting agencies</p>
Develop Formal Regional Communication	<p>Regional communication between neighboring States is typically an informal process subject to OS/OW permitting officials knowing their counterparts in another State. The western provinces of Canada have developed an alternative to this informal arrangement called the NWP.</p> <p>The NWP identified rules that hinder the free movement of goods, services, and people. The NWP has had some successes in harmonizing OS/OW regulations, including night move regulations, escort vehicle specifications, holiday restrictions, and escort vehicle warning signs.</p> <p>The partnership identified OS/OW corridors in the region, when civilian escorts are required, and the weights allowed for OS/OW transportation. NWP is an example of removing</p>	<p>Lead: State DOT</p>

Best Practice	Description	Key Actors
	<p>barriers between jurisdictions and formalizing communication on regulatory issues.</p> <p>When one NWP member is proposing a change to a regulation, all members look at the regulation. The NWP does the following:</p> <p>Uses carriers and shippers from major industries to identify the biggest issues for OS/OW travel.</p> <p>Developed close working relationships between permitting counterparts within member jurisdictions.</p> <p>Forming and agreeing on a standardized notification and analysis process with other members to assess proposed measures and to keep officials up to date on what is occurring in the other jurisdiction.</p> <p>(Source: NCHRP Report 830)</p>	

Appendix B:

Emergency Route Working Group Committee Meeting Agendas

Emergency Route Working Group
U.S. Department of Transportation Conference Center
1200 New Jersey Ave. SE
Washington, DC 20590

AGENDA

Monday, January 9, 2017

- 8:30 a.m. **Getting Started - Administrative**
- 9:00-9:30 **Welcome and Introductions**
- Crystal Jones**
Lead Transportation Specialist - Designated Federal Officer
Office of Freight Management and Operations
Federal Highway Administration
- Michael Callahan**
Vice President and Chief Executive Officer, Electric
Cooperative of Mississippi
Chairperson - Emergency Route Working Group
- Bill Wondrachek**
Director Freight Engineering, Wisconsin Department of
Transportation
Vice Chairman - Emergency Route Working Group
- 9:30-9:45 **Scope of the Committee**
- 9:45-10:45 **Scoping of the problem by ERWG members - with Public
Comments**
- 10:45-11:00 **Break**
- 11:00-11:45 **Federal and State Roles - Vehicle Size and Weight and Special
Permitting**
-with Public Comments and Committee Discussion
- **John Berg**
Program Manager - FHWA Vehicle Size and Weight

 - **Matthew Hedge**
Special Hauling and Permit Manager
Pennsylvania Department of Transportation

- 11:45-12:15 **Literature review of Special Permitting during Emergency Response and Recovery – with Public Comments and Committee Discussion**
- **Laurence O’Rourke – ICF**
- 12:15-12:30 **Preparatory for Afternoon Session**
- 12:30-1:30 **Lunch**
- 1:30-3:30 **Discussion of Topical Areas for ERWG Consideration and Deliberation**
- Do impediments currently exist that prevent expeditious State approval of special permits for vehicles involved in emergency response and recovery?
 - Is it possible to pre-identify and establish emergency routes between States through which infrastructure repair materials could be delivered following a natural disaster or emergency?
 - Can a State pre-designate an emergency route as a certified emergency route if a motor vehicle that exceeds the otherwise applicable Federal and State truck length or width limits may safely operate along such route during periods of declared emergency and recovery from such periods?
 - Can an online map be created to identify each pre-designated emergency route, including information on specific limitations, obligations, and notification requirements along that route?
- 3:30-3:45 **Break**
- 3:45-4:30 **Advice and Recommendations on Best Practices**
- 4:30 **Adjourn**

Emergency Route Working Group
U.S. Department of Transportation Conference Center
1200 New Jersey Ave. SE
Washington, DC 20590

AGENDA

Thursday, February 16, 2017

- | | |
|----------------|--|
| 8:30 a.m. | Getting Started -
Crystal Jones, DFO
Chairman Michael Callahan |
| 9:00 - 9:45 | International Registration (IRP)

International Fuel Tax Agreement (IFTA)

Bob Pitcher - American Trucking Association |
| 9:45 - 10:00 | Transition to Breakouts |
| 10:00 - 12:00 | Breakout Sessions
Richard Cofer - Utilities
Bill Wondrachek - State DOT and Enforcement Agencies
Dave Schilling - Federal Agencies and Others |
| 12:00 - 1:00pm | Lunch |
| 1:00 - 2:30 | Breakouts Continued |
| 2:30 - 3:00 | Break |
| 3:00 - 4:00 | Breakout Report Outs |
| 4:30 | Wrap-up and Adjournment |

**Emergency Route Working Group
1200 New Jersey Ave. SE
Washington, DC 20590
US DOT Conference Center**

Connect to the meeting via webinar please use the following link:
<https://connectdot.connectsolutions.com/freight/>
and join the audio portion at 1-877-336-1839 - Access code 9250959.

AGENDA

Wednesday, May 10, 2017

- | | |
|---------------------|--|
| 8:30 – 9 a.m. | Opening Remarks |
| 9 – 11:30 a.m. | Recommendations and Advice (Utilities perspective) |
| 11:30 a.m. – 1 p.m. | Lunch |
| 1 – 3:00 p.m. | Recommendations and Advice (Federal perspective) |
| 3:00 p.m. | Break |
| 3:30–4:30 p.m. | Recommendations and Advice (State Department of
Transportation and enforcement perspective) |
| 4:30 p.m. | Wrap-up and Adjournment for the day |

Wednesday, May 11, 2017

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| 8:30 – 9 a.m. | Opening Remarks |
| 9–10:30 a.m. | Recommendations and Advice (State Department of
Transportation and enforcement perspective, continued
from May) |
| 10:30 a.m. – 12 p.m. | ERWG Report to the Secretary of Transportation (Outline
Discussion) |
| 12:00–12:30 p.m. | Outstanding Issues and topics for additional deliberation |
| 12:30 p.m. | Wrap-up and Adjournment |

Emergency Route Working Group
US DOT Conference Center
27 June – Media Center 8:30 am to 4:30 pm
28 June – Oklahoma Room ABC 8:30 to 12:30pm
1200 New Jersey Ave. SE, Washington, DC 20590

AGENDA

Tuesday, June 27, 2017

8:30 AM – 9:00 AM	Getting Started Crystal Jones, DFO Chairman Michael Callahan
9:00 AM - 12:00 PM	Draft Report to the Secretary – Discussion
12:00 PM - 1:30 PM	Lunch
1:30 PM – 3:00 PM	Draft Report to the Secretary – Discussion
3:00 PM – 3:15 PM	Break
3:15 PM – 4:30 PM	Recommendation Prioritization and Action Planning
4:30 PM	Adjournment for the Day

Wednesday, June 28, 2017

9:00 AM - 11:00 AM	Recommendation Prioritization and Action Planning
11:00 AM - 11:15 AM	Break
11:15 AM - 12:30 PM	Next Steps
12:30 PM	Meeting Adjournment

Emergency Route Working Group
1200 New Jersey Ave. SE, Washington, DC 20590
US DOT Conference Center

Connect to the meeting via webinar please use the following link:
<https://connectdot.connectsolutions.com/freight/>
and join the audio portion at 1-877-336-1839 - Access code 9250959.

AGENDA

Tuesday, August 8, 2017

9:00 a.m.	Getting Started Crystal Jones, DFO Chairman Michael Callahan Meeting Minutes
9:30 a.m. – 10:30 a.m.	Public Comments
10:30 a.m.	Break
10:45 a.m. – 12:00 p.m.	Review and comment on Report to the Secretary
12:00 p.m. – 1:00 p.m.	Lunch
1:00 p.m. – 3:00 p.m.	Review and comment on Report to the Secretary
3:00 p.m. – 3:30 p.m.	Break
3:30 p.m. – 4:15 p.m.	Review and comment on Report to the Secretary
4:15 p.m.	Wrap-up and Adjournment for the day

Wednesday, August 9, 2017

9:00 a.m. – 11:00 a.m.	Review and comment on Report to the Secretary
11:00 a.m. – 12:00 p.m.	Open Topics
12:00 p.m.	Wrap-up and Adjournment for the day

Emergency Route Working Group

US DOT Conference Center

27 September – Room 5 – 8:30 am to 4:30 pm

28 September – Room 8,9,10 – 8:30 to 12:30 pm

1200 New Jersey Ave. SE, Washington, DC 20590

AGENDA

Wednesday September 27

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| 8:30 am | Getting Started
Crystal Jones, DFO
Chairman Michael Callahan |
| 8:45 am – 9:00 am | Minutes from Last Meeting |
| 9:00 am – 9:30 am | Public Comments and Response |
| 9:30 am – 10:30 am | IBTTA International Bridge, Tunnel and Turnpike Association
Neil Gray, Dir. Of Govt. Affairs Informational presentation on
tolling interoperability and tolling operations during emergency
response and recovery |
| 10:30 am | Break |
| 10-45 am – 12:00 pm | Lessons Learned from recent operations (e.g. Irma and Harvey) |
| 12:00 pm – 1:00 pm | Lunch |
| 1:00 pm – 3:00 pm | Draft Report to the Secretary – Discussion |
| 3:00 pm – 3:15 pm | Break |
| 3:15 pm – 4:30 pm | Draft Report to the Secretary – Discussion |
| 4:30 pm | Adjournment for the Day |

Thursday, September 28, 2017

8:30 am – 11:00 am Refinement of Recommendations, Prioritization and Action
Planning

11:00 am – 11:15 am Break

11:15 am – 12:00 pm Next Steps

12:00 pm Meeting Adjournment

Appendix C:

Emergency Route Working Group Membership

**Emergency Route Working Group
Membership as of December 9, 2016**

First Name	Last Name	Organization/ Affiliation	Represented Group
Alex	Appel	Department of Transportation – Office of the Secretary	Emergency response or recovery experts
Brent	Baker	Empire District Electric	Entity impacted by special permits
Michael	Callahan	Electric Cooperatives of Mississippi	Entity impacted by special permits
Jamie	Clark	Department of Energy	Emergency response or recovery experts
Richard	Cofer	Southern Company	Emergency response or recovery experts
Patti	Earley	Florida Power & Light	Entity impacted by special permits
Ezra	Folsom	Florida Highway Patrol	Safety Group
Michael	Frego	Federal Emergency Management Agency (FEMA)	Emergency response or recovery experts
Matthew	Hedge	Pennsylvania Department of Transportation	State Department of Transportation
Tom	Kearney	Department of Transportation	Modal agency within U.S. DOT
Jonathan	Mallard	Virginia Department of Transportation	State Department of Transportation
Tom	Moran	All Hazards Consortium	Various
Joe	Salamy	Federal Motor Carrier Administration (FMCSA) Southern Service Center	Safety Group Modal agency within U.S. DOT
Steve	Sandmeyer	Idaho Helicopters	Various
David	Schilling	Department of Transportation – Office of the Secretary	Emergency response or recovery experts
Jeff	Short	American Transportation Research Institute	Various
Aaron	Strickland	Georgia Power/Southern Company	Emergency response or recovery experts
Michael	Temple	Alabama Rural Electric Association	Entity impacted by special permits
Steven	Todd	Specialized Carriers & Rigging Association	Various
David	White	Tucson Electric Power	Entity impacted by special permits
Bill	Wondrachek	Wisconsin Department of Transportation	State Department of Transportation