



# MITRE

## Expediting Emergency Response with Predefined Regulatory Waivers

Preparing Critical Infrastructure for Rapid and Effective Disaster Management

*October 2025*

Matt Hardison, Mark Bristow, and Chris Sledjeski

## EXECUTIVE SUMMARY

China and Russia continue to preposition access points and malware within U.S. critical infrastructure systems—including transportation, energy, communications, and water—creating potential asymmetric attack options and posing a growing threat to our nation’s essential services. These malign activities, as highlighted in the [2025 Annual Threat Assessment](#), underscore the critical need to strengthen national incident response capabilities and support state-level preparedness to mitigate the magnitude and consequences of potentially catastrophic disruptions.

This white paper—the second in MITRE’s ongoing series on critical infrastructure readiness for foreseeable conflict scenarios—examines the need for, and potential of, predefined regulatory waivers to expedite emergency response and recovery operations. It is intended to initiate discussion and encourage further research on strengthening emergency response and recovery for U.S. critical infrastructure by improving regulatory planning and preparedness, particularly through prepositioned waivers.

## Context for this Work

In December 2024, The MITRE Corporation hosted a first-of-its-kind tabletop exercise, bringing together more than 200 participants from 70 organizations to simulate a multiregion, multisector cyber attack on U.S. critical infrastructure. The exercise and its findings led to five key recommendations, which are outlined in MITRE’s [Five Steps to Prepare Critical Infrastructure for a Cyber War](#):

1. Create a Civil Defense Mindset
2. Manage Limited Resources During Emergencies
3. Plan for Operations Under Extreme Conditions
4. Strengthen Emergency Communications Systems
5. Ensure Workforce Readiness for Emergencies

The first paper in this series, “[Past is Prologue: Creating a Civil Defense Mindset to Address Modern Cyber Threats](#)” (published May 2025), is a call to action to reassess emergency management strategies at the national, state, and local levels. Recognizing that the “homeland is no longer a sanctuary,” the paper emphasizes the need for the U.S. to modernize its approach to emergency preparedness by integrating traditional civil defense principles from the post–World War II era with strategies suited to today’s digitally interconnected environment.





During the tabletop exercise and subsequent discussions related to recommendations 3 and 4, state, local, and industry participants highlighted how certain regulations can hinder large-scale emergency response and recovery efforts. They noted that regulations effective during normal operations may not function as intended during emergencies. For instance, participants from several cities reported that existing regulations or policies prevented them from requesting mutual aid to restore their natural gas distribution networks during one of the exercise's disruption scenarios. These regulatory barriers delayed recovery efforts and potentially increased risks to public health and safety. This and related research<sup>1</sup> highlighted the need to evaluate the potential for carefully crafted federal, state, and local regulatory and policy waivers to expedite responses to large-scale manmade disasters, including those complicated by adverse weather conditions.

## Findings in Brief

This white paper identifies the important potential of prepackaged federal, state, and local emergency regulatory waivers to streamline crisis response and recovery. Such packages can be systematically designed and either automatically triggered by emergency declarations or enacted immediately by local emergency response managers.

Specific actions to address this need include:

- **Engage Government Agencies and Industry Stakeholders to Define a Waivers Action Plan:** Develop a broader framework for regulatory relief, including waiver packages and policy/legislative concepts, tailored to the unique challenges of major incidents and cross-sector coordination.

- **Expand the Scope of Statutory and Regulatory Reviews:** Document emergency authorities across all federal Sector Risk Management Agencies and state governments to identify opportunities for improved preparedness and effectiveness.
- **Create a Waiver Response Decision-Support Tool:** Provide structured guidance for engaging federal, state, and local waiver support during incidents or disasters. This tool could be integrated with platforms such as WebEOC, delivering practical value to emergency managers at all levels.
- **Implement Predefined Waiver Packages:** Develop uniformly structured waivers tailored to specific sectors and circumstances, ensuring rapid activation during crises.

By implementing these recommendations, the U.S. can improve emergency response and recovery across critical infrastructure sectors. Proactive regulatory solutions and continued collaboration will be essential to strengthening national resilience against future threats.

<sup>1</sup> See, for example, *Restoring Flow of Private Sector Lifelines - Operational Strategies for Emergency Managers*, Appendix B, page 10 (January 2025); [https://www.fema.gov/sites/default/files/documents/fema\\_restoring-flow-operational-strategies-for-em\\_012025.pdf](https://www.fema.gov/sites/default/files/documents/fema_restoring-flow-operational-strategies-for-em_012025.pdf)

## INTRODUCTION

In December 2024, more than 200 participants from 70 organizations—including federal agencies, state and local governments, and private-sector operators—gathered at MITRE’s McLean, VA, campus for a classified tabletop exercise. The exercise simulated a prolonged, multiregion, multi-sector set of cyberattacks on critical infrastructure. That work led to five recommendations for preparing critical infrastructure for a cyber war:

1. **Create a Civil Defense Mindset:** Promote education, awareness, and self-reliance to ensure that citizens, communities, and businesses understand risks and are prepared to respond effectively during emergencies.
2. **Manage Limited Resources During Emergencies:** Develop contingency plans that address sustained outages and integrate cross sector interdependencies and resource orchestration, rather than focusing solely on isolated events.
3. **Plan for Operations Under Extreme Conditions:** Enhance cyber resiliency plans and train personnel to manage manual operations during prolonged crises, recognizing that cyberattacks on interconnected infrastructures can cause cascading impacts and complicate recovery.
4. **Strengthen Emergency Communications Systems:** Improve the resilience of Primary, Alternate, Contingency, and Emergency (PACE) communications plans by improving backup systems and implementing authentication protocols to ensure reliable communication during cyber incidents.
5. **Ensure Workforce Readiness for Emergencies:** Establish contingency staffing plans, provide long-term support for critical staff and their families, and train personnel to manage workforce shortages that may arise during extended emergencies.

Among its findings, the exercise also raised important questions related to recommendations 3 and 4 above, specifically regarding the ability of federal, state, and local governments to quickly enable relief and reconstitution efforts free from regulatory or policy constraints during major disruptions or disasters.

While it was beyond the scope of MITRE’s tabletop exercise research to examine regulations and their impacts across the tens of thousands of jurisdictions in the U.S., this white paper examines a select subset of agencies, their regulations, and, where they exist, prepackaged waivers. The goal is to identify the potential for more broadly and systematically organized solutions—and to outline next steps.

## Waivers to Support Rapid Response

The Federal Emergency Management Agency (FEMA) has emphasized the importance of regulatory waivers in disaster response, noting that temporary waivers of regulations, ordinances, and policies are often the most effective means of restoring critical private-sector capacity. The White House’s March 2025 [Executive Order \(EO\) 14329, “Achieving Efficiency Through State and Local Preparedness,”](#) also underscores the importance of empowering state and local entities in emergency planning and response, with federal agencies providing support. In practice, these waivers can prove vital to ensuring a timely response—and to ensuring that the action itself is aligned with the intended goal.

Participants in MITRE’s tabletop exercise highlighted the potential for waivers, noting that regulations that work well in steady-state operations can lead to unintended consequences in emergencies and, in fact, may work at cross-purposes. For example, several cities indicated they were prevented, under current regulations or policies, from seeking mutual aid to support restoration of their natural gas distribution network during

one of the exercise disruption scenarios. These impediments slowed their recovery time and potentially increased impacts to the population's health and safety.

This white paper explores opportunities for prepackaged waiver and policy relief to avoid risks such as these and to expedite response and recovery after a natural or manmade disaster. It does so by addressing the following questions:

- What regulatory constraints exist during emergency response, and are there rapid, effective methods for securing relief (i.e., waivers)?
- What tools, policies, or procedures can support an expedited response?
- Are there automated triggers for regulatory waivers during emergencies?
- What policy changes could support efficient crisis operations while remaining aligned with EO 14329 objectives?
- Can pre-existing, automatically enacted waivers improve response and recovery outcomes?

We provide a high-level assessment of regulatory relief mechanisms, focusing on sector-specific examples from the December tabletop exercise and supplemental research—including waivers in electricity, transportation, and communications—to identify constraints, challenges, and opportunities for expedited waivers and policy actions in emergency response. This research is not comprehensive; rather, it is intended to frame the regulatory challenges in this context. Additional work is needed.

## SECTOR-SPECIFIC GOVERNMENT WAIVERS

Relaxing rules in FEMA's primary sectors for private-sector lifeline coordination—including transportation, energy, telecommunications, and water—can significantly improve emergency response by enabling faster delivery of relief, restoring essential services, and protecting lives. This section summarizes commonly used waivers in three of these sectors, noting that the process and time required to activate each waiver vary.

### Transportation

Transportation waivers are a high priority during crises, as they contribute directly to the speed and efficiency of relief operations. Examples include:

- **Commercial Driver Hours-of-Service (HOS) Waivers:** Automatically triggered during federally declared emergencies, these waivers allow truck drivers to exceed normal driving hour limits for up to 30 days to deliver critical goods. HOS waivers are routinely invoked for hurricanes, wildfires, and fuel shortages. HOS was also waived nationwide during the COVID-19 response to facilitate medical supply deliveries.
- **Truck Weight and Size Waivers:** States can issue special overweight permits for divisible loads, such as food, water, or fuel, after a major disaster declaration. These waivers enable more cargo per trip and are critical for moving bulk aid and heavy equipment.
- **Toll Road Waivers:** Toll collections are often suspended during evacuations or emergency responses to expedite traffic flow. For example, Florida frequently waives tolls ahead of hurricanes.
- **Driver Credentialing and Entry Restrictions:** Temporary waivers allow truck drivers to operate with expired commercial licenses or without

certain endorsements during relief efforts. This increases the pool of available responders, such as utility repair teams, fuel delivery trucks, or medical supply transport vehicles.

- **Railroad, Maritime, and Aviation Waivers:** Transportation waivers help expedite disaster response by addressing operational constraints. For example, the Federal Railroad Administration can suspend compliance with safety regulations, such as maintenance or inspection requirements, during emergencies. The Department of Homeland Security can issue Jones Act waivers to allow foreign vessels to move goods between U.S. ports, enabling critical fuel deliveries after disasters. The Federal Aviation Administration can authorize drones for damage assessment, relax crew duty limits, or adjust airport slot rules to accommodate relief flights, using emergency authority on a case-by-case basis.

### Energy

Energy infrastructure waivers are essential for sustaining electric power and fuel supplies during emergencies. Examples include:

- **Fuel Standards and Environmental Waivers:** The Environmental Protection Agency can waive fuel formulation requirements under the Clean Air Act to address regional supply disruptions. These waivers ensure adequate gasoline and diesel supplies for emergency vehicles and generators.
- **Emergency Power Generation Orders:** Under Section 202(c) of the Federal Power Act, the Secretary of the U.S. Department of Energy can order utilities to take emergency actions, such as running plants around the clock, even if these actions violate environmental regulations.
- **Pipeline and Fuel Transport Waivers:** During energy emergencies, the Pipeline and Hazardous Materials Safety Administration can



issue emergency permits to expedite pipeline repairs or reroute fuel. In addition, the Federal Energy Regulatory Commission can prioritize interstate oil and gas shipments to critical areas to address regional shortages.

- **Fuel Tax Relief and Price Controls:** The Internal Revenue Service can waive fuel tax rules to increase the usable fuel supply, and state governors can suspend fuel taxes or enforce anti-gouging laws to protect consumers. In extended emergencies, the government may implement fuel rationing or pricing interventions to protect the public and manage resources.
- **Utility Regulations and Mutual Aid:** States often waive utility regulations to accelerate power restoration and recognize out-of-state professional licenses for mutual aid crews so they can work immediately. The Stafford Act designates utility repair crews as “essential service providers,” ensuring they are granted access to disaster areas and are not restricted by local regulations, which enables faster restoration of critical services.



### Communications

The Communications sector—which includes telecommunications, broadcasting, cable, and satellite—is a vital “lifeline,” as it supports emergency response coordination, provides public access to critical aid during crises, and underpins all other sectors. Communications waivers help restore connectivity for responders and the public. However, in cases of systemic outages affecting the core services of wide-area communications networks, state and local governments have limited or no ability to manage these situations, despite their broad authority in other areas.

Examples of communications waivers include:

- **Emergency Communications Support and Special Temporary Authority:** The Federal Communications Commission provides regulatory relief by expediting Special Temporary Authority requests and waiving certain technical rules to ensure critical communications during emergencies. For example, after disasters, carriers may deploy portable cell sites on trucks or drones, and emergency responders may use temporary spectrum assignments for interoperable radio networks at incident sites.
- **Procedural Waivers for Recovery and Consumers:** The Federal Communications Commission often waives operational or funding

requirements after major disasters—such as Universal Service Fund filing deadlines or E-Rate program rules—and extends programs like Lifeline by relaxing eligibility rules to ensure that providers can focus on restoration and that vulnerable citizens can stay connected.

- **Access for Infrastructure Repair:** Telecommunications crews are classified as “essential service providers” under the Stafford Act, granting them access to disaster areas for repairs.
- **Local Zoning Waivers:** Local governments can waive permitting requirements for temporary communications infrastructure, such as mobile cell towers or satellite uplinks.

### CONCEPTS FOR EXPEDITED WAIVERS

The value and effectiveness of waivers depend on the incident phase. In the initial response phase, how quickly a waiver can be enacted is crucial. In later stages, there may be more time to evaluate and implement waivers based on specific circumstances.

Certain regulations are particularly critical for enabling rapid emergency response:

- **Transportation HOS and Weight Limits:** These waivers directly affect the speed of relief supply delivery and are among the most frequently used.
- **Fuel Supply and Power Generation Rules:** Waiving fuel standards and emissions limits can alleviate shortages and sustain critical services. Unlike HOS rules, these energy regulations require deliberate action to implement.
- **Access and Mobility Restrictions:** Waiving curfews, road closures, and credentialing requirements for essential workers ensures that relief crews can enter disaster zones without delay.
- **Cross-Jurisdictional Regulatory Recognition:** During large-scale disasters, states often



waive professional licensing laws and vehicle registration requirements to allow out-of-state aid—such as electricians, truck drivers, and fuel trucks—to assist efficiently. Coordination of multistate infrastructure operations (e.g., railroads, energy, pipelines) may also benefit from prenegotiated agreements to expedite response; however, this area requires further research.

Prepackaged waivers can include those that are automatically activated during a declared emergency, or predrafted, preapproved documents that can be enacted quickly during emergencies. This is especially important when conventional communications are disabled, impeding or delaying activation. These waivers can be organized into tiers based on urgency:

- **Tier 1 – Immediate Lifesaving Waivers (“Lifeline”):** Focused on the first 24–72 hours, these waivers prioritize the movement of goods, fuel availability, and access, such as through HOS suspension orders and weight waivers.
- **Tier 2 – Stabilization Waivers (“Restoration”):** Designed for sustaining critical services beyond the initial response, these waivers include utility operation waivers and public health and safety waivers.
- **Tiers 3/4 – Extended Outage/Recovery Waivers (“Recovery”):** For prolonged disruptions, these waivers address long-term recovery needs, such as emergency building code variances and information-sharing restrictions.

For prepackaged waivers, the priority is Tier 1 (“Lifeline”) waivers.

## NEXT STEPS

To improve the waiver process for expedited emergency response, possible actions include:

- **Engage Government Agencies and Industry Stakeholders to Define a Waivers Action Plan:** Convene government and industry stakeholders to consider a broader framework for regulatory relief, encompassing waiver packages and policy and legislative concepts, in light of the unique challenges of major incidents, such as response coordination across infrastructure sectors.
- **Expand the Scope of Statutory and Regulatory Reviews:** This white paper examined a subset of regulations, including existing prepackaged waivers and their benefits. Expanded due diligence reviews are needed to document emergency authorities across all federal Sector Risk Management Agencies and state governments, identifying opportunities to improve preparedness and effectiveness.
- **Create a Waiver Response Decision-Support Tool:** Develop a decision-support tool to assist emergency managers and applicants for federal regulatory waivers. This tool would provide structured guidance on engaging federal, state, and local waiver support during incidents or disasters, could easily be integrated with related tools such as WebEOC and could deliver practical value to emergency managers at all levels.
- **Implement Predefined Waiver Packages:** Design prepackaged waivers based on frequency of use and disaster risk, tailored to specific sectors and circumstances to ensure rapid activation during crises.



## ADDITIONAL RESOURCES

Documents published after the tabletop exercise, which offer deeper analysis and practical strategies for improving disaster response, are also available online:

- [Five Steps to Prepare Critical Infrastructure for a Cyber War](#)
- [Past is Prologue: Creating a Civil Defense Mindset to Address Modern Cyber Threats](#)

## ACKNOWLEDGEMENTS

The research team wishes to thank our TTX participants and contributors for advancing the concept presented in this paper as well as the following specific individuals who graciously volunteered their time to provide advice and suggestions supporting this report:

- Sharla Artz, Xcel Energy
- Jen Gallagher, Federal Railroad Administration
- John Livingston, Federal Railroad Administration
- Scott Range, Massachusetts State Police

### About MITRE

*MITRE's mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.*

*The views, opinions, and/or findings contained herein are those of the author(s) and should not be construed as an official government position, policy, or decision unless designated by other documentation.*

