

Federal Highway Administration (FHWA)/ Federal Transit Administration (FTA) Benchmarking Documentation for new Categorical Exclusion for Emergency Actions

I. Introduction

Section 1315(a) of the Moving Ahead for Progress in the 21st Century Act of 2012 (MAP-21) required the Secretary of Transportation to publish a Notice of Proposed Rulemaking (NPRM) for a National Environmental Policy Act (NEPA) categorical exclusion under 23 CFR 771 for the repair or reconstruction of any road, highway, or bridge damaged by an emergency that is either (1) declared by the Governor of the State and concurred in by the Secretary; or (2) declared by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. § 5121 *et seq.*). Such repair or reconstruction activity is excluded if it is in the same location with the same capacity, dimensions, and design as the original road, highway, or bridge as before the declaration; and is commenced within a 2-year period beginning on the date of the declaration.

On October 1, 2012, the FHWA and FTA published a NPRM addressing the requirements of section 1315 of MAP-21. Additionally, the Agencies sought comments on whether other activities should be included, such as: (1) construction of engineering and design changes to a damaged facility to meet current design standards; (2) repair and reconstruction of adjacent transportation facilities within the right-of-way damaged by the emergency (such as bike paths or ancillary structures); (3) construction of betterments to the damaged facilities beyond those eligible under 23 U.S.C. 125; (4) construction of engineering and design changes to a damaged facility for the purpose of seismic retrofitting; (5) construction of engineering and design changes to a damaged facility to deal with future extreme weather events and sea level rise; and (6) construction of other engineering and design changes to a damaged facility to address concerns such as safety and environmental impacts. Comments were generally supportive of the proposed rulemaking.

This document focuses on the substantiation needed for elements added to the rule that go beyond the language proposed in section 1315(a) of MAP-21. This record is based on agency experience with similar actions and benchmarking using other Federal agency's experience and their NEPA categorical exclusion record. In a separate summary record, FTA provides substantiation for the addition of the terms "transit facilities" and transit "tunnels" and for the new CE language covering emergency repairs under new Public Transportation Emergency Relief Program.

II. Substantiation

A. CE Text

The FHWA and FTA are adopting new CE language for emergency activities using input from the NPRM process and based on the Agencies' experience in funding repair and reconstruction of transportation in the aftermath of disasters. The new CE provides:

The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):

- (i) ***
- (ii) *The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:*
 - (A) *Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades warranted to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and*
 - (B) *Is commenced within a 2-year period beginning on the date of the declaration.*

The term “reconstruction” means the demolition and rebuilding of a damaged facility, or part of a damaged facility, within the same footprint as the original. The term “retrofitting” refers to the addition of elements to a damaged facility to extend the life of the facility or to conform to a protective measure (e.g., earthquake retrofit, measure to reduce flood vulnerability, safety). The term “replacement” is meant to capture situations where a comparable facility is needed.

The identified actions are covered by the new CE language as long as they occur within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original. The phrase “substantially conforms to the preexisting design, function, and location” is used to limit the amount of ground disturbance or resource impact. The phrase “substantially conforms” allows for some deviation from the original footprint, design, and function, but does not allow construction of a facility that is substantially different in nature. Work is restricted to the area within the existing right-of-way as an additional measure to limit the likelihood of potential impacts to protected resources. The phrase “which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction” allows for the restoration of the facility taking into account up-to-date codes and standards, but also allows for situations where restoration should accommodate changed conditions. For example, new flood risk information could be taken into account in the design of the transportation facility even when the community has not adopted a higher floodplain code. Another example is when the

reconstruction of a water crossing presents an opportunity to address fish passage concerns. In these situations conditions have changed since the original construction that may warrant a construction approach that goes beyond existing codes and standards.

As with any other CE, the actions must still comply with other environmental laws (e.g., section 106 under NHPA, section 404 of CWA, 23 U.S.C. 138/ 49 U.S.C. 303 (section 4(f)), section 7 under ESA, bridge permits under the General Bridge Act of 1946) is required. Compliance with these requirements would also assist in addressing impacts in those unique situations where protected resources are present in the existing right-of-way.

In the Agencies' experience repairs, alterations, and improvements of existing transportation infrastructure within their right-of-way or their original footprint are not expected to have significant impacts. For example, FHWA has CEs for analogous work (23 CFR 771.117 (c)(9) (emergency repairs under the FHWA Emergency Relief Program), (c)(6) (alteration to existing publicly owned buildings for noise reduction), (c)(8) installation of fencing, signs, pavement markings, and traffic signals), (c)(12) (improvements to existing rest areas and truck weigh stations), (c)(15) (alterations to facilities in order to make them accessible for elderly and handicapped persons), (c)(18) (track and railbed maintenance and improvements when carried out within the existing right-of-way), (d)(1) (resurfacing, restoration, reconstruction of highways), and (d)(3) bridge rehabilitation, reconstruction, or replacement)).

B. Benchmarking using FEMA Categorical Exclusion in 44 CFR 10.8(d)(2)(xv)

The Agencies have relied on the Federal Emergency Management Agency's (FEMA) categorical exclusion in 44 CFR 10.8(d)(2)(xv) (hereinafter FEMA CE (xv)) to modify the language originally proposed in the NPRM. FEMA CE (xv) reads:

Repair, reconstruction, restoration, elevation, retrofitting, upgrading to current codes and standards, or replacement of any facility in a manner that substantially conforms to the pre-existing design, function, and location.

The Agencies' repair, reconstruction, restoration, retrofit, and replacement actions are similar to FEMA's actions of Federal financial assistance for transportation facilities. The Agencies' and FEMA's actions are typically carried out as permanent work that is eligible under a post-disaster assistance program. The only difference between a FEMA-funded and a FHWA-or FTA-funded repair, reconstruction, restoration, retrofit, or replacement of a road, bridge, or transportation facility is the funding source. The nature and typical level of impacts are similar, particularly when the actions substantially conform to the preexisting design, function, and location. In the Agencies' experience the level of impacts for these actions are typically not significant because the actions are limited to the existing right-of-way and must substantially conform to the preexisting design, function, and location of the original facility. This is consistent with FEMA's availability and use of FEMA CE (xv). The Agencies have reviewed environmental assessments from FEMA, guidance and training materials provided by FEMA, and have discussed the FEMA CE (xv) with current and past FEMA environmental practitioners to reach this conclusion.

“Benchmarking” – substantiating a new categorical exclusion based on another agency’s experience – is an accepted method in accordance to CEQ guidance, *Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act*, 75 Fed. Reg. 75628 (Dec. 6, 2010). Federal agencies must demonstrate that the benchmarked actions are comparable to the actions in a proposed CE basing this on: (1) characteristics of the actions; (2) timing and context, including the environmental setting in which the actions take place; (3) applicable standard operating procedures or implementing guidance (including extraordinary circumstances); (4) methods of implementing the actions; and (5) frequency of the actions. These factors are addressed below. A sixth consideration has been added describing the coordination with FEMA and the Department of Homeland Security. The Agencies are relying on their past experience with similar actions for this comparability evaluation.

(1) Characteristics of the actions

The list of actions covered by the new CE language in 23 CFR 771 and the FEMA CE (xv) are similar. The CEs would cover:

- Actions associated with the repair of facilities;
- Actions associated with the reconstruction of facilities;
- Actions associated with the restoration of facilities;
- Actions associated with retrofitting facilities;
- Upgrades of facilities to current codes and standards; and
- Actions associated with replacement of facilities.

One difference between FEMA’s actions and the actions addressed by the new FHWA/FTA CE language is the scope of facilities covered. FEMA’s CE is more expansive than the FHWA/FTA CE language because it covers all types of facilities, not only transportation-related facilities, as long as they are eligible for FEMA assistance. The FHWA/FTA CE language covers only transportation-related facilities.

FEMA considers roads, bridges, transit-related facilities, and ancillary transportation facilities as facilities that may be eligible for FEMA’s programs. For example, under FEMA’s Public Assistance program repair, replacement, reconstruction, upgrades, and replacement of transportation facilities are considered eligible under Categories of Work C: Roads and Bridges, E: Buildings and Equipment, and G: Parks, Recreational Facilities, and Other Facilities. See FEMA 321 – Public Assistance Policy Digest, FEMA 322 – Public Assistance Guide, and FEMA 323 – Applicant Handbook available at www.fema.gov/public-assistance-policy-and-guidance. Another post-disaster FEMA program, the Hazard Mitigation Grant Program, provides assistance for the protection of transportation facilities. See Hazard Mitigation Assistance Uniform Guidance (June 1, 2010) available at www.fema.gov/hazard-mitigation-grant-program.

Examples of actions that would fit within the FEMA CE and the new FHWA/FTA CE language include:

- Replacement of a road in-kind (construction of comparable facility in the same location)
- Re-grading roadway embankments and surfaces
- Replacement of a bridge in-kind (including changing the material)
- Road grade raise
- Elevation of bridges
- Bridge repair
- Installing seismic retrofit on bridges
- Adding scour protection at bridges
- Culvert upsizing
- Culvert replacement
- New surfacing
- Replacement of traffic control devices
- Replacing ancillary facilities and appurtenances, such as signs, guardrails, and fences.
- Repair or replacement of roadside appurtenances (e.g., guardrail, bridge rail, impact attenuators, right-of-way fences)
- Repair of bus terminals
- Replacement of garages
- Repairs to bases, shoulders, and ditches
- Repair and replacements of bridge piers, girders, and abutments
- Repair and replacement of piers
- Repairs of mass transit facilities

(2) Timing and context, including the environmental settings in which the actions take place.

FEMA's disaster assistance actions and the FHWA/FTA actions that would be covered by the new CE language will be undertaken in a similar timeframe – in the aftermath of disasters. One difference is for incidents resulting in a State emergency declaration and concurred by the Secretary but not triggering a Presidential declaration under the Stafford Act. In these situations FEMA's disaster assistance programs would not be triggered even though they may become qualifying events for the emergency relief programs under 23 U.S.C. 125 or 49 U.S.C. 5324 and the new FTA/FHWA CE language. Although FEMA's disaster programs would not be triggered, similar needs would be present in these situations. These include the need for immediate action to restore the transportation system and the need for Federal resources to address the problem.

A bridge collapse is an example of a qualifying event for FHWA and FTA that would not trigger a Stafford Act declaration. The FHWA reviewed the environmental review processes for repair and replacement actions associated with five bridge collapses between 2002 and 2008. See *Meeting Environmental Requirements After A Bridge Collapse* (2008) available at http://www.environment.fhwa.dot.gov/projdev/bridge_casestudy.asp#good. Between 2002 and 2008, five bridges collapsed in the U.S.:

1. I-35W Bridge over the Mississippi River in Minneapolis, Minnesota; catastrophic failure during bridge work in August, 2007

2. I-10 Bridge over Escambia Bay, Florida; destroyed by Hurricane Ivan in September, 2004
3. I-40 Bridge over the Arkansas River near Webbers Falls, Oklahoma; catastrophic failure after being struck by a barge in May, 2002
4. U.S. 90 Bridge over Biloxi Bay in Mississippi; destroyed by Hurricane Katrina in August, 2005;
5. U.S. 90 Bridge over St. Louis Bay in Mississippi; destroyed by Hurricane Katrina in August, 2005

Four of these actions were processed as CEs and one, U.S. 90 Bridge over Biloxi Bay, with an Environmental Assessment/Finding of No Significant Impact.

The actions covered by the new FHWA/FTA CE language will be undertaken to restore a transportation facility that has been damaged by the event. The actions included in the categorical exclusion will occur within existing right-of-way. Typically, the area surrounding the facility has been already disturbed and the new facility or the actions involved in the restoration action occur within this footprint.

As with the current FHWA actions covered by existing CEs and FEMA actions covered by the FEMA CE (xv), the actions covered by the new FHWA/FTA language may take place in various environmental settings. They may take place in urban and rural settings; developed and undeveloped areas; and within areas with resources of concerns such as floodplains, coastal areas, and historic sites. The limitations in the CE language to work that substantially conforms to the preexisting design, function, and location as the original would have the effect of limiting the environmental impacts of the action. In addition, actions covered by the FHWA/FTA CE must also comply with other environmental laws (e.g., section 106 under NHPA, 23 U.S.C. 138/49 U.S.C. 303 (section 4(f)), section 7 under ESA). Compliance with these requirements would also assist in addressing impacts in those unique situations where protected resources are present within the existing right-of-way.

(3) Applicable standard operating procedures or implementing guidance (including extraordinary circumstances)

The FEMA NEPA Desk Reference at <http://www.fema.gov/library/viewRecord.do?id=3249> provides an explanation of the intent of FEMA CE (xv). The guidance document provides that FEMA CE (xv):

[I]s intended to cover a wide range of hazard mitigation retrofitting measures that include most seismic retrofit projects. This would not cover section 406 alternate projects unless the new facility is being built on the footprint of a previous facility that had a substantially similar design and function.

"Substantially conforms to the preexisting design [and] function" is intended to include use of the property consistent with the previous land use. Change in design or function that would result in potentially significant effects on the surrounding environment is also

not intended to be covered - such as differing levels of pollution, noise, odor, smoke, visual impact, traffic, increased capacity, etc.

"Substantially conforms . . . to the pre-existing location" is intended to mean little if any ground disturbance outside of the footprint of an existing facility, and activity not resulting in substantial removal of trees, or filling of wetlands, disruption to archeological resources, adverse hydrologic/hydraulic effects, etc.

FEMA NEPA Desk Reference at p. 21.

The actions that would be covered by the new FHWA/FTA CE language would be limited in a similar manner. In the new FHWA/FTA CE language, work is limited to the existing right-of-way and it must substantially conform to preexisting design, function, and location.

(4) Methods of implementing the actions

The method used for implementing the actions is through grant assistance that provides the funding for the construction work to repair, reconstruct, restore, retrofit, or replace the transportation facilities. The applicant would propose the action for the Federal agency's (FEMA, FHWA, or FTA) approval. This includes the submission of the scope of the work that will be accomplished. The Federal agency evaluates the proposed action to determine if it meets eligibility criteria and then engages in the environmental review of the action. The Federal agency makes an approval decision after the environmental review is completed and provides the applicant with the decision and any conditions for the work. Once approved the applicant initiates their procurement process, undertakes the action, and reports to the Federal agency upon completion of the work.

(5) Frequency of the actions

The FEMA actions and FHWA actions to repair, reconstruct, replace, restore, retrofit, and upgrade transportation facilities occur in similar frequency. Upon a Presidential disaster declaration both the FEMA post-disaster programs and the FHWA Emergency Relief Program are activated. Transportation facility repair, reconstruction, replacement, restoration, retrofit, and upgrade work are submitted to the applicable Agency based on the eligibility criteria. The new FTA Emergency Relief Program would operate in similar manner.

(6) FEMA Coordination

FHWA and FTA have coordinated with the DHS and FEMA. This record reflects this coordination process. FHWA and FTA's review revealed that FEMA has not engaged in the EIS process and has not experienced significant environmental impacts from the repair, reconstruction, restoration, retrofit, and replacement activities conducted for the types of transportation facilities would be covered by the CE in the 30-year history of that Agency. This was confirmed by current and former FEMA officials.

C. Benchmarking using FTA Categorical Exclusion in 23 CFR 771.118(c)(8)

FHWA has relied on its experience and FTA's benchmarking for their CE in 23 CFR 771.118(c)(8) to support the inclusion of highway tunnels in the list of transportation facilities that will be covered by the new CE language. Although not specifically called out in authorizing language for the FHWA Emergency Relief Program, tunnels and bridges are part of the Federal-aid highway system and thus can be and have been repaired, reconstructed, restored, retrofitted, or replaced, and upgraded under the FHWA Emergency Relief Program.

The FTA (c)(8) CE reads:

Maintenance, rehabilitation, and reconstruction of facilities that occupy substantially the same geographic footprint and do not result in a change in functional use, such as: improvements to bridges, tunnels, storage yards, building stations, and terminals; construction of platform extensions, passing track, and retaining walls; and improvements to tracks and railbeds.

The creation of this CE was based on FTA's experience with this type of activity as evidenced in the substantiation record *Federal Transit Administration Proposed Categorical Exclusions*, pp. 30-33 (2012). This document can be found at the www.regulations.gov Docket FTA-2011-0056 or at http://www.fta.dot.gov/documents/FTA_NEPA_NPRM_docket_documentation_3-14-12.pdf. The environmental impacts associated with actions to maintain, rehabilitate, and reconstruct transit tunnels under these conditions is similar to the environmental impacts associated with actions to repair and restore highway tunnels in the aftermath of disasters. The benchmarking substantiation factors are addressed below.

(1) Characteristics of the actions

There are some differences between highway tunnels and transit tunnels. Unlike highway tunnels, transit tunnels are mostly not ventilated, have special electrical system equipment (e.g., third rail) and may have stations. Unlike some transit tunnels, highway tunnels have extensive ventilation systems (i.e., separate vent buildings, vent shafts, battery power backups) and road surface.

Despite these design differences, highway and transit tunnels are structurally and functionally similar. More importantly, the nature of the work needed in highway tunnels and transit tunnels in the aftermath of emergencies is similar to maintenance, rehabilitation, and reconstruction as described in FTA CE (c)(8). For example, the types of actions covered by (c)(8) and the new CE language for emergency actions include:

- Repairs to electrical and mechanical systems;
- Repairs to suspended ceilings; and
- Repairs to ceiling or wall tiles.

Actions undertaken in emergencies for highway tunnels may include work that is not needed for transit-only tunnels such as pavement resurfacing and repair of vent shafts. However, this work would occupy substantially the same geographic footprint and would not result in a change of the functional use of the highway tunnel, which are conditions that have been imposed in FTA's CE (c)(8) and are included in the new FHWA/FTA CE language.

In the Agencies' experience these types of activities which typically occur within the enclosed structure and in previously disturbed ground, do not result in significant environmental impacts.

(2) Timing and context, including the environmental settings in which the actions take place.

Maintenance, rehabilitation, and reconstruction of transit tunnels under the FTA CE (c)(8) would take place in similar environmental settings as emergency related work for highway tunnels. In both scenarios, the tunnel facility has already been built or is under construction. Additionally the work would take place within the enclosed area where the surroundings have already been disturbed. Emissions, effluent discharge (with the exception of dewatering scenarios), energy consumption, and solid waste production (with the exception of debris removal produced by the disaster) would likely be the same.

Timing of emergency related work in highway tunnels as compared with maintenance, rehabilitation, and reconstruction of transit tunnels under the FTA (c)(8) will be different because emergency work is invariably going to take place in the aftermath of disasters and with the intent to restore the function a facility has been damaged by the event. Maintenance, rehabilitation, and reconstruction of transit tunnels in non-emergency situations would not have the same extenuating circumstances that are typically associated with restoring a tunnel in the aftermath of a disaster. This difference in timing, however, is a negligible factor in finding that these actions are comparable. The level of environmental impacts for maintenance, rehabilitation, and reconstruction of transit tunnels in non-emergency situations and the repair, reconstruction, and restoration highway tunnels in the aftermath of an emergency would be similar. In both scenarios the work would involve the repair or replacement of the structure and supporting equipment (electrical systems, mechanical systems, ceilings, tiles, etc.). These would occur within the structure and in the built environment. The same consideration of unusual circumstances would apply to both scenarios to identify cases where a higher level of environmental analysis might be warranted.

The context in which both CEs would operate is similar. The objective for actions covered by the CE is to address deteriorating conditions that would otherwise result in considerable public safety problems. One difference may be the baseline conditions that exist prior to the start of the work. The deteriorating conditions associated with non-emergency situations are likely gradual and without any intervening force precipitating the need for action. In contrast, the deteriorating conditions associated with emergency situations are immediate and the direct result of an intervening force (i.e., the incident or event). As a result, the state of the transportation infrastructure in emergency situations could be much more deteriorated than the state of the infrastructure in a non-emergency setting. This difference in context, however, is a negligible

factor in the comparison of the actions because the level of environmental impacts of the actions taken to address the deteriorating conditions, whether gradual or immediate, would be similar.

(3) Applicable standard operating procedures or implementing guidance (including extraordinary circumstances)

FTA and FHWA follow the same set of NEPA procedures, which can be found in 23 CFR part 771. The procedures include the same list of unusual circumstances that are taken into consideration to determine if the use of the CE is proper. The Agencies frequently issue joint guidance on the general NEPA review process.

It is important to note, however, that the new CEs issued by FTA, including FTA's CE (c)(8), would not apply to FHWA actions. Guidance and standard operating procedures specific to the new FTA CE's would not apply FHWA. However, the Agencies will continue to coordinate with each other given the shared NEPA procedures and similarities in other program elements.

(4) Methods of implementing the actions

The method used for implementing the actions covered by the new CE language and FTA's CE (c)(8) is through funding assistance that provides monies for the construction work to repair, reconstruct, restore, retrofit, or replace, and upgrade the tunnel facilities. The applicant would propose the action for the Federal agency's (FHWA or FTA) approval. This includes the submission of the scope of the work that will be accomplished. The Federal agency evaluates the proposed action to determine if it meets eligibility criteria and then engages in the environmental review of the action. The Federal agency makes an approval decision after the environmental review is completed and provides the applicant with the decision and any conditions for the work. Once approved the applicant initiates their procurement process, undertakes the action, and reports to the Federal agency upon completion of the work.

(5) Frequency of the actions

FHWA's emergency actions for highway tunnels may not occur with the same frequency as maintenance, rehabilitation, and reconstruction of transit tunnels as specified in FTA's CE (c)(8). However, in the Agencies' opinion, and based on their experience, the differences in the frequency of the actions is a negligible factor in this particular case.

(6) Coordination with FTA

In accordance with section 1315 of MAP-21, the emergency-oriented CE applies to both the FHWA and FTA. As a result, both Agencies have coordinated extensively with each other in the process of developing a proposed CE language, in responding to comments, and developing the final CE language. The Agencies have discussed the addition of tunnels to the new CE language for emergency actions and the difference between highway and transit tunnels. The Agencies have found that the environmental impacts are comparable.