Oregon
Kate Brown, Governor

Department of Consumer and Business Services
Oregon Occupational Safety & Health Division (Oregon OSHA)
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June 13, 2019

Request for Public Comment- Addendum to Petition to Amend Oregon Administrative Rules Relating to Traffic Control

Since the last request for public comment, Oregon OSHA has received an addendum to the previous petition received regarding traffic control. As a reminder, this petition, submitted by an industry representative in the traffic control arena, requests that Oregon OSHA amend Oregon administrative rules related to traffic control. The addendum to the petition was received June 10, 2019.

Oregon OSHA has attached the addendum in question to this document. We encourage public commenters to review this document and the resources referenced there.

Oregon OSHA has not yet decided whether to pursue such rulemaking. Per Oregon Revised Statute 183.390(2), Oregon OSHA is soliciting public comment regarding this addendum, as new information is provided. Specifically, Oregon OSHA is requesting public comment regarding the following:

- Whether there are options for achieving the substantive goals of the suggested rule amendments in a way that reduces the negative economic impact on businesses, and;

- Whether or not Oregon OSHA should initiate rulemaking to amend OAR 437-003-0420 and OAR 437-002-2224(12), or other related rules, based on this petition and the addendum. For these purposes, 'initiating rulemaking' would mean consulting an advisory committee, as is usual for the Division's rulemaking process.

For more information: Our web site – https://osha.oregon.gov/rules/advisory/Pages/default.aspx
Or call 503-947-7449

To comment: Department of Consumer and Business Services/Oregon OSHA
350 Winter Street NE
Salem OR 97301-3882
E-mail – tech.web@oregon.gov

Fax – 503-947-7461

Comment period closes: **June 28, 2019**

Oregon OSHA contact: **Tawnya Swanson, Central Office @ 503-947-7386**
or email at tawnya.swanson@oregon.gov

Note: In compliance with the Americans with Disabilities Act (ADA), this publication is available in alternative formats by calling 503-378-3272.

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Mr. Michael Wood, Administrator
Oregon Occupational Safety and Health Division
Department of Consumer and Business Services,
350 Winter Street, NE, 3rd. Floor
PO Box 14480
Salem OR 97309-0405

May 29, 2019

Re: Addendum to Official Request for Changes to OSHA Regulations.

Mr. Michael Wood,

The enclosed document is a copy of the addendum to the Official Request for Changes to OSHA Regulations, that was submitted to the FHWA Office of Transportation – MUTCD Team and the OSHA Directorate.

Please attach the addendum to the report sent to you previously.

Thanking you in advance for your interest in this matter.

Regards,

Peter Vieveen
Chairman
North America Traffic Inc.
Cell: 905.984.7558
Peter@NorthAmericaTraffic.com

ISO 9001:2015

25 YEARS 1994-2019

National Strategy On Highway Safety
PROUD PARTNER
TowardZeroDeaths.org

Federal Highway Administration (FHWA),

Office of Transportation Operations

FHWA MUTCD Team

Re: Addendum to my formal *request for changes* on *when to use Flaggers*.

May 28, 2019.

MUTCD Team members;

Since sending out my *request for changes* on March 28th, I received the latest Bureau of Labor Statistics (BLS) report on *Fatal Occupational Injuries to Flaggers at road construction sites.* In 2016, 10 flagger deaths were reported. The high number of deaths, in just one year, confirms that the current Engineering Controls, Personal Protective Equipment and Regulations aren't 100% effective at preventing flagger fatalities.

The current standard indicating that *a feasible means of addressing struck-by hazards is the wearing of high-visibility apparel* is no longer a feasible means to protect flaggers exposed to risky drivers. The fact that we have not yet eliminated drunk drivers, distracted drivers, speeding drivers, drug impaired drivers and drowsy drivers substantiates the need for new regulations to prevent flagger fatalities.

According to the latest BLS report, 30 flaggers were killed between 2011 to 2017. We can expect at least another 30 flaggers to be killed in the next 7 years.

Here is just one of the many stories I found on the web about a flagger killed and another flagger seriously injured in Oregon – August 2018

A 76-year-old Milton-Freewater man faces manslaughter, DUI, hit-and-run after killing Flagger, Tyresa Monaghan, 49, of Kennewick, Washington. A second flagger was seriously injured in a construction zone crash south of Monmouth Wednesday night. The common factor – people are putting themselves on the line to protect travelers and employees in the work zone, ODOT said in a news release Thursday.

Who decides on which traffic control device a *flagger should use*?

OSHA - 1926.20(a) Contractor Requirements

(1) Section 107 of the Act requires that it shall be a condition of each contract which is entered into under legislation subject to Reorganization Plan Number 14 of 1950 (64 Stat. 1267), as defined in 1926.12, and is for construction, alteration, and/or repair, including painting and decorating, that no contractor or subcontractor for any part of the contract work shall require any laborer or mechanic employed in the performance of the contract to work in surroundings

or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety.

Contractor requirements are for worker safety, but the engineer specifies the type of traffic control device operated by the flagger when a standard drawing is issued. According to the MUTCD "*Engineering judgement should be exercised in the selection and application of traffic control devices.*"

A stop/slow paddle is a traffic control device and as such, it is not up to the contractors' on-site safety professional to determine which traffic control device to use to regulate traffic (i.e. a stop/slow paddle or an AFAD).

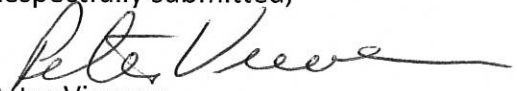
MUTCD Standard: 01

Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, ... by authority of a public agency or official having jurisdiction,

Contractors simply follow the standard drawings issued by the engineer under the direction of the road authority. Standard drawings should include notes for alternative traffic control devices such as rumble strips and/or AFADs, so that the on-site safety professional can select from a list of options for the safest method of traffic control for each work zone condition.

The work performed by a flagger holding a stop/slow paddle while standing at the edge of a roadway is a working condition that is hazardous and dangerous to their health and should be recognized nationally by an OSHA regulation. Without a regulation on *when to use flaggers* there is no legal requirement that can be enforced by OSHA. Engineers and on-site safety professionals are not required by law to assess the risk of a flagger holding on to a stop/slow paddle while being exposed to risky drivers. The large number of flagger fatalities reported annually support the need for new regulations.

Respectfully submitted,



Peter Vieveen

Chairman

North America Traffic Inc.

Peter@NorthAmericaTraffic.com

Oregon
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April 23, 2019

Request for Public Comment- Petition to Amend Oregon Administrative Rules Relating to Traffic Control

Oregon OSHA is requesting public comment regarding a petition received April 8, 2019. This petition, submitted by an industry representative in the traffic control arena, requests that Oregon OSHA amend Oregon administrative rules related to traffic control.

Oregon OSHA has attached the petition in question to this document. We encourage public commenters to review this document and the resources referenced there. The suggested petition also highlights areas of both rulemaking and research regarding the use of flaggers, including Washington Administrative Rules, National Institute of Occupational Safety and Health publications, and documents produced by WorkSafe BC.

Oregon OSHA has not yet decided whether to pursue such rulemaking. Per Oregon Revised Statute 183.390(2), Oregon OSHA is soliciting public comment regarding this petition. Specifically, Oregon OSHA is requesting public comment regarding the following:

- Whether there are options for achieving the substantive goals of the suggested rule amendments in a way that reduces the negative economic impact on businesses, and;

- Whether or not Oregon OSHA should initiate rulemaking to amend OAR 437-003-0420 and OAR 437-002-2224(12), or other related rules, based on this petition. For these purposes, 'initiating rulemaking' would mean consulting an advisory committee, as is usual for the Division's rulemaking process.

For more information: Our web site – https://osha.oregon.gov/rules/advisory/Pages/default.aspx
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To comment: Department of Consumer and Business Services/Oregon OSHA
350 Winter Street NE

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Fax – 503-947-7461

Comment period closes: **May 31, 2019**

Oregon OSHA contact: **Tawnya Swanson, Central Office @ 503-947-7386 or email at tawnya.swanson@oregon.gov**

Note: In compliance with the Americans with Disabilities Act (ADA), this publication is available in alternative formats by calling 503-378-3272.

Official Request for Changes to OSHA Regulations March 28, 2019

To:

Federal Highway Administration (FHWA),

Office of Transportation Operations

MUTCD Team

Email address: MUTCDofficialrequest@dot.gov.

Statement of changes being sought:

Code of Federal Regulation (CFR) – a new administrative code for *"when to use flaggers":*

Index

Submitted by:

Peter Vieveen
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7 Petersburg Circle
Port Colborne, Ontario L3K5V5
Peter@NorthAmericaTraffic.com

A description of the condition that provoked the need for changes:

This past August, I attended ATSSA's 2018 mid-year meeting, bringing more than 300 members and industry partners from across the United States together in Williamsburg Virginia to discuss the future of the roadway safety industry.

In his opening remarks to the general session, Mr. Stephen C. Brich, Virginia DOT Commissioner said: ***"****distracted drivers involved in motor vehicle crashes in Virginia is an epidemic, and safety is the number one issue we are facing today… we had two flaggers struck by distracted drivers in two districts in crashes that occurred just days apart".*

After the morning general session, Mr. David Rush, VDOT Work Zone Safety Program Manager, spoke in more detail about the safety issues. He said: "*No matter how many advanced warning signs you install, distracted drivers don't see them, and they don't slow down … and when they don't see the signs, they don't see the Flaggers either."*

These statements made by high level Virginia State DOT officials prompted me to investigate into Flagger Safety, to see what we can do to *eliminate flagger fatalities.*

According to the Bureau of Labor Statistics[1] 32 flaggers were killed between 2003 and 2010. I feel empathy for the family members, friends and co-workers that live through the pain and suffering of losing a loved one. And, the number of serious flagger injuries far exceed the number of fatalities.

Many organizations have created national strategies to *eliminate fatalities* on our roads. The FHWA created "Road to Zero", ATSSA and AASHTO have joined together to create "Towards Zero Deaths", and ITE has "Vision Zero". The *Toward Zero Deaths* strategy is to reduce annual US traffic fatalities from more than 33,000 to zero.

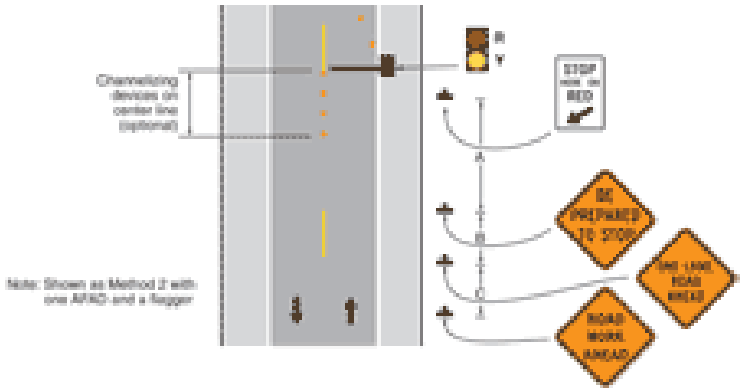
Being employed as a flagger does not directly harm employees. However, *conditions of that employment* to which an employee is exposed, such as; proximity to traffic, speed of the traffic, lighting conditions, road conditions, weather conditions, and road design (straight/level/banked) all directly contribute to both the frequency, and severity, of injuries and illnesses sustained by flaggers. These conditions, and others like them, are what employers must control.

End

Any illustration that would be helpful to understand the request;

Automated Flagger Assistance Devices (AFADs) first entered the market in 1994. They are included in the 2009 edition of the MUTCD.

Figure 6E-2 An example of the use of a Red/Yellow Lens Automated Flagger Assistance Device.

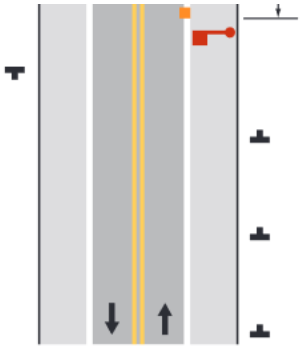


Section 6E.04 Automated Flagger Assistance Devices

Support:
01 Automated Flagger Assistance Devices (AFADs) enable a flagger(s) to be positioned out of the lane of traffic and are used to control road users through temporary traffic control zones. These devices are designed to be remotely operated either by a single flagger at one end of the TTC zone or at a central location, or by separate flaggers near each device's location.

Figure 6C-3 below, describes the *flagger method of traffic control* that has been in use since the beginning of time.

Figure 6C-3 Flagger Method of Traffic Control



December 2009 Sect. 6C.12

Figure 6C-3. Example of a One-Lane, Two-Way Traffic Taper

Figure 6E-3 Use of Hand-Signaling Devices by Flaggers

Image: James Scott Baron ATSSA

The FHWA's recent mandatory standard for workers on federal-aid highways shows that struck-by hazards in highway/road construction work zones are well recognized by the construction industry. Furthermore, the standard indicates that *a feasible means of addressing that hazard is the wearing of high-visibility apparel. Accordingly, high-visibility apparel is required under the General Duty Clause to protect employees exposed to the danger of being struck by public and construction traffic while working in highway/road construction work zones.* Typically, workers in a highway/road work zone are exposed to that hazard most of the time. (…Volume 71 of the Federal Register[2], page 67792 emphasis added.)

Statistics show that the wearing of *high-visibility apparel* may not be enough to protect flaggers exposed to Risky drivers i.e. distracted, speeding, drunk, drug impaired and drowsy drivers. Risky drivers are involved in 65% of fatalities on our roads today and on average, 4 to 5 flaggers are killed every year. In an OSHA Article, 900 of the 1,000, people killed in work zones every year are the direct result of driver error.

End

Supporting research data that is pertinent to the item to be changed:

Current Federal Regulations and MUTCD standards;

OSHAs' publication - 3151-12R 2004 on Personal Protective Equipment talks about Work Practice Control to manage or eliminate hazards.
"Controlling a hazard at its source is the best way to protect employees. Depending on the hazard or workplace conditions, OSHA recommends the use of engineering or work practice controls to manage or eliminate hazards to the greatest extent possible. For example, building a barrier between the hazard and the employees is an engineering control; changing the way in which employees perform their work is a work practice control."

Work Practice Control is equivalent to an *Administrative Control* and *Administrative Control* is included under "*Worker Safety Considerations*".

In Section 6D.03 Worker Safety Considerations;

E. Worker Safety Planning—a trained person designated by the employer should conduct a basic hazard assessment for the worksite and job classifications required in the activity area. This safety professional should determine whether engineering, administrative, or personal protection measures should be implemented.

CFR 23-635-Subpart A - 635.108 Health and Safety
Contracts for projects shall include provisions designated:

(B) *To require that the contractor shall provide all safeguards, safety devices, and protective equipment and shall take any other actions reasonably necessary to protect the life and health of persons working at the site of the project and the safety of the public and to protect property in connection with the performance of the work covered by the contract.*

OSHA - 1926.20(a) Contractor Requirements

(1) *Section 107 of the Act requires that it shall be a condition of each contract which is entered into under legislation subject to Reorganization Plan Number 14 of 1950 (64 Stat. 1267), as defined in 1926.12, and is for construction, alteration, and/or repair, including painting and decorating, that no contractor or subcontractor for any part of the contract work shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety*.

The following Administrative Code was written by the Washington State Legislature.

Washington State promulgates occupational safety and health regulations in the Washington Administrative Code (WAC) - 296-155-305 - Signaling and flaggers.

(2) When to use flaggers

(a) You must use flaggers when other reasonable traffic control methods will not adequately control traffic in the work zone.

(b) If signs. Signals, and barricades do not provide necessary protection from traffic at work zones and construction sites on or adjacent to a highway or street, then you must use flaggers or other appropriate traffic controls.

In a **National Institute of Occupational Safety and Health** (NIOSHA) publication 2001-128,

"Measures to Prevent Worker Injuries from Vehicles and Equipment", more than 50 industry professionals participated in creating this document.

Their recommendations are;

"*Avoid using flaggers whenever possible. Use alternative management systems such as lane shifts, portable Traffic signals, or remote signaling devices operated by workers away from the flow of traffic."*

Despite this NIOSHA publication, AFADs are not commonly used by State DOTs;

According to TRB's NCHRP; Synthesis 525: Practices in One-Lane Traffic Control on a Two-Lane Rural Highway identifies innovative practices and devices for establishing one-lane traffic control on rural two-lane highways,

"AFADs are not commonly used by state DOTs. One of the primary reasons noted for limited deployment is that AFADs, in comparison to human flagger control, require additional devices, which increase project cost".

Protective measures in British Columbia and Ontario;

The Province of British Columbia introduced a new Transportation Management Manual (TMM) in 2015, BCs' version of the MUTCD.

The following sections of the TMM reference flaggers;

2.2.1 Hierarchy of Controls
Use the hierarchy of controls below to manage interaction between road users and the work zone. Most work zones will require a combination of these controls.

1. Elimination Controls …
2. Engineering Controls …
3. Administrative Controls …
4. *Traffic Control Persons*

    Use Traffic Control Persons where the strategies described above have been considered and deemed unsuitable to effectively manage traffic.

2.2.4 Clear, Positive Direction for Road Users

4. When the use of temporary traffic control devices is inadequate for clear direction, Traffic Control Persons should be considered.

Section 5.2 – Use of Traffic Control persons (TCPs),

- *TCPs are used only when other traffic control methods are considered inadequate to warn, direct, and regulate road users within a work zone.*
- *Traffic Control Persons shall not control traffic within speed limits greater than 70 km/hr.*

WorkSafe BC – Occupational Health and Safety Regulation

The Occupational Health and Safety Regulation (OHSR) contains legal requirements that must be met by all workplaces under the inspectional jurisdiction of WorkSafe BC.

Part 18 Traffic Control

18.6 Use of a traffic control person

(1) A traffic control person may be used only

> *(a) if the use of signs and other traffic control devices and procedures alone cannot provide effective traffic control, or*
>
> *(b) during emergency or brief duration work if it is not practicable to control traffic with signs and other devices and procedures.*

In Ontario in 2014, an inquiry into the death of a flagger, Mr. Brain Daniels resulted in the Coroner's Jury Recommendations aimed at preventing similar deaths.

One recommendation is to amend the guidelines in Ontario's Traffic Manual -Book 7 to require the use of AFAD's, or appropriate devices for regulation/control of flow of traffic… on all highway construction sites with speed > 60 km/h and < than 90 km/hr.

The reasons why *high-visibility safety apparel* may not be a feasible means to protect flaggers from Risky Drivers.

The ***"Safe stopping sight distance"*** in the MUTCD Table 6C-2, is used in the design and placement of advanced warning signs**.**

Table 6C-2. Stopping Sight Distance as a Function of Speed

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed

The *safe stopping distance* simply doesn't apply to *risky drivers*.

Speeding drivers -

By driving too fast, speeding drivers cannot stop safely within the *safe stopping distance* to avoid a crash when approaching a Flagger station, and a Flagger has less time to react and get out of harm's way.

Distracted drivers –

It's been reported that distracted drivers take their eyes off the road for about 5 seconds every time they send/receive a text. At 55 mph, a vehicle travels 403 feet in 5 seconds, enough to cover the length of a football field blindfolded. Distracted drivers aren't looking at the road, don't obey the advanced warning signs, and they don't see the flagger until it's too late.

Drunk, Drug Impaired and Drowsy drivers –

These drivers have a slower reaction time to the changing road condition, created by a work zone lane closure. Therefore, they cannot react in time to stop within the *stopping sight distance*, shown in Table 6C-2 to avoid a crash. Slower reaction time also affects their ability to redirect their vehicle to avoid crashing into a Flagger.

Automated Flagger Assistance Devices (AFADs)

New technologies were introduced into the 2009 MUTCD and are deemed to be *"effective at controlling traffic".* Image: James Scott Baron ATSSA

Little-known facts about AFADs;

1. AFADs can be operated by people with disabilities, creating new job opportunities for them**.** "*I've always said, a person sitting in a wheel chair can operate this device."*
2. Flaggers don't have to walk out into the lane with approaching traffic, to prevent motorists from entering the work zone. The Reb/Yellow lens AFAD has a 10-foot-long gate-arm which provides a physical barrier to prevent motorists from entering the work zone.
3. A worker assigned to "light duty work" after an injury, can operate an AFAD.
4. AFADs can be equipped with an intrusion alarm, to immediately notify co-workers of a risky driver, dangerously entering the work zone.
5. Flaggers operating AFADs don't need the stamina and physical strength to stand for 8 hours a day. Controlling the signaling device is as simple as pressing a Red or Green button on the remote control and tracking vehicle activity.
6. There are no limitations as to where or when an AFAD can be utilized, when operated as a stop/slow paddle.
7. A flagger seldom suffers from fatigue or stress during the day, which leads to less flagger errors. The AFAD does all the stressful work of directing traffic flow.
8. An AFAD always provides clear and positive guidance to the drivers approaching the work zone, with no chance of error or mis-communication.
9. A flagger doesn't need the ability to move and maneuver quickly to avoid danger from errant vehicles, when operating an AFAD.

Conclusions;

There may have been a time when a flagger using a stop/slow paddle was considered safe. Based on what Mr. Steven Brich and Mr. David Rush had to say at the ATSSA mid-year meeting, a flaggers job is extremely dangerous and is not considered safe anymore. Alarm bells are ringing, and this is our wake-up call to act.

The flagger is the only construction worker told to stand close to traffic, outside the safety of cones, barrels or barricades. Everyone in the industry, from the road authority down to the on-site safety professional, assumes that a flagger using a stop/slow paddle is safe. Conditions of a flaggers' employment have changed with exposure to distracted drivers and we can no longer assume a flaggers' job is safe by simply wearing *high-visibility apparel*.

The Washington State Legislatures' administrative code is a good example for *when to use flaggers;*

(a) You must use flaggers when other reasonable traffic control methods will not adequately control traffic in the work zone.

(b) *If signs. Signals, and barricades do not provide necessary protection from traffic at work zones and construction sites on or adjacent to a highway or street, then you must use flaggers or other appropriate traffic controls.*

A similar administrative code, at the Federal and State level, will go a long way to improving safety.

British Columbia's Traffic Management Manual identifies when to use flaggers, in response to experiencing a high number of flagger injuries and fatalities. WorkSafe BC's Occupational Health and Safety Regulation contains new legal requirements that must be met by all workplaces under the inspectional jurisdiction of WorkSafe BC.

The industry is changing and with a new Manual coming soon, now is a good time to review outdated standards and to write new standards aimed at eliminating flagger fatalities.

Respectfully submitted,

Peter Vieveen,
Chairman
North America Traffic Inc.