DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

INITIAL STATEMENT OF REASONS

TITLE 13, CALIFORNIA CODE OF REGULATIONS, DIVISION 2, CHAPTER 6, ARTICLE 2.5
AMEND SECTION 1157.18

Inhalation Hazards Routes - Map 7
(CHP-R-2019-06205)

PURPOSE OF REGULATIONS AND PROPOSED AMENDMENTS

The California Highway Patrol (CHP) proposes to amend regulations in Title 13 of the California Code of Regulations (CCR), Division 2, Chapter 6, Article 2.5, Section 1157.18, regarding designated routes for highway transportation of inhalation hazards by commercial vehicles in the Brawley-El Centro area.

Pursuant to Division 14.3, Transportation of Inhalation Hazards, commencing with Section 32100 of the California Vehicle Code (CVC), the CHP shall adopt regulations specifying highway routes to be used in the transportation of inhalation hazards by commercial vehicles. The CVC requires the CHP to keep information current in regulations, with maps clearly indicating designated routes and a list of locations for inspection stops, required inspection stops, and safe stopping places. The CHP's field commands conduct annual reviews of the inhalation hazards routes and stops to determine if changes are necessary. The proposed amendments will keep inhalation hazards routes consistent with the recently constructed Brawley Bypass and expanded State Route (SR) 78 and SR 111, and enhance public health and safety in the area. The proposed regulation amendments will also change a map label from an inspection stop to a required inspection stop for the newly upgraded In-Ko-Pah Brake Check and Truck Rest Area along Interstate (I)-8 about 40 miles west of El Centro.

The proposed amendments have received concurrence from the CHP's Border Division, Brawley Fire Department (BFD), El Centro Fire Department (ECFD), Westmorland Fire Department (WFD), Westmorland Police Department (WPD), Imperial County Fire Department (ICFD), State Fire Marshal (SFM), and California Department of Transportation (Caltrans).

PURPOSE OF AMENDMENTS

The proposed amendments will update and clarify designated routes for transporting inhalation hazards by amending Map 7, specified in Section 1157.18 CCR, due to the recently constructed Brawley Bypass and expanded SR 78 and SR 111. Additionally, the proposed regulation amendments will change a map label from an inspection stop to a required inspection stop for the

newly upgraded In-Ko-Pah Brake Check and Truck Rest Area along I-8 about 40 miles west of El Centro.

Title 49 of the Code of Federal Regulations, Section 397.71, authorizes each state to establish, maintain, and enforce routing in order to minimize risks and enhance public safety for the highway transportation of inhalation hazards by examining, reviewing, and evaluating alternate routes. This routing assessment employs the methodologies outlined in the Highway Routing of Hazardous Materials-Guidelines for Applying Criteria (FHWA-HI 97-003) published by the Federal Highway Administration (FHWA) of the United States (U.S.) Department of Transportation (DOT). The methodologies used take into consideration items, such as driving distance and time, number of schools, population and housing densities, and traffic crash rates along highways. The data is compiled using demographic and spatial data retrieved from the 2010 census survey conducted by the U.S. Census Bureau (CB), the 2012 emergency facility sites composed by the Southern California Earthquake Center (SCEC) at the University of Southern California (USC), additional locations of fire stations received from the ICFD, the traffic volume counts compiled by Caltrans, the crash incidents collected in the CHP's Statewide Integrated Traffic Records System (SWITRS) database, and the highway length and transit time derived from Google Earth and Google Maps. When data is not available for certain segments of local roads, the best estimates on traffic volume counts and/or crash rates are applied. The evaluation of relative risks for each alternative route is conducted using a geographic information system (GIS) with a seven-mile buffer zone of the routes referenced in the 2016 Emergency Response Guidebook (ERG) issued by the U.S. DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA).

Due to the recently constructed Brawley Bypass and expanded SR 78 and SR 111, the CHP conducted one rulemaking process in the year of 2018 to update routes for transporting explosives. These proposed regulation amendments (CHP-R-2018-04) were approved by the California Office of Administrative Law, filed with the California Secretary of State, and became effective on December 26, 2018, for the Calexico-El Centro-Brawley area. This set of adopted regulations was provided to the PHMSA in order to update the national registry of hazardous materials routing.

RATIONALE AND ANALYSIS

The existing designated inhalation hazards routes specified in Map 7 were established in 1992 and have not been updated. The carriers who transport inhalation hazards from the California/Nevada border to northern California, or vice versa, may take the existing designated routes of I-8 and Forrester Road (Rd.)/County Rd. (CR) S30 connecting SR 78/SR 86 to reach I-10, as shown in *Figure 1*. However, Forrester Rd. is a two-lane CR and does not meet all requirements under the federal Surface Transportation Assistance Act (STAA) of 1982. State Route 111 located about 6.5 miles east, parallel to Forrester Rd., was converted from a two-lane road to a four-lane expressway between Calexico and Brawley in 2002.

To alleviate congestion of SR 78/Main Street passing through the densely populated downtown area of Brawley, a four-lane divided highway, known as the SR 78/SR 111 Expressway or the

Brawley Bypass, was built around the City of Brawley, opened to traffic on October 30, 2012, and later reassigned as part of SR 78. One year later, another newly constructed four-lane expressway, connecting the Brawley Bypass to SR 78/SR 86, was also reassigned as one section of SR 78 to replace the old route. Thus, the recently expanded section of SR 111 and the newly constructed and reassigned sections of SR 78 provide a potential opportunity to reduce risks associated with the transportation of inhalation hazards between I-8 and SR 78/SR 86; therefore, an assessment is required.

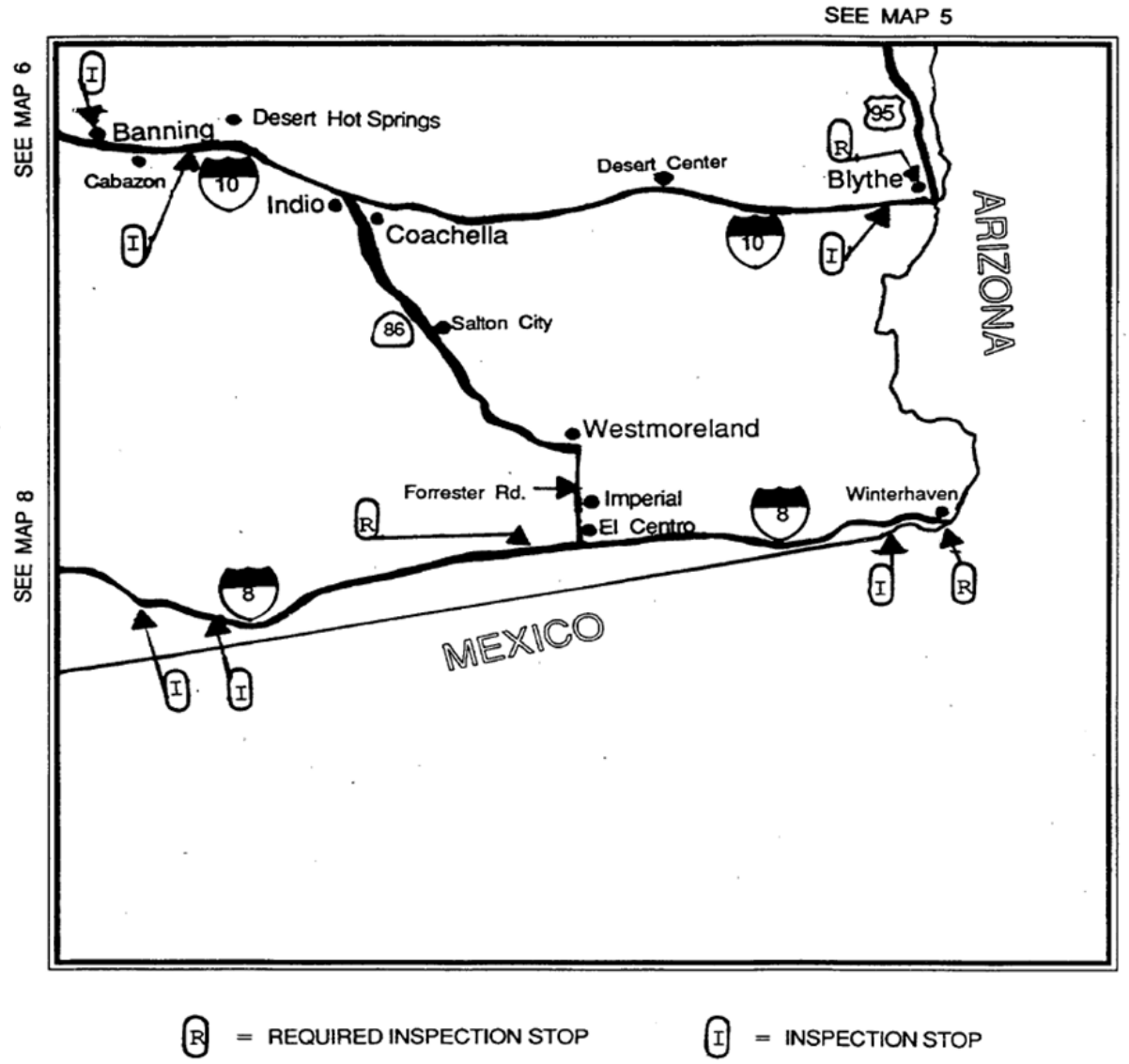

Figure 1: Map 7 Showing the Existing Inhalation Hazards Routes Designated in the Brawley-El Centro Area

To evaluate the relative risks along these highway sections in the Brawley-El Centro area between Point G and L, shown in *Figure 2*, the existing inhalation hazards route, taking I-8 and Forrester Rd. as Route 1, is compared to the alternative route, utilizing the recently expanded SR 111 and SR 78, including the newly constructed Brawley Bypass, as Route 2. As revealed in Table 1, Route 2 possesses a slightly shorter road distance, drive time, and fewer population and

housing units within its seven-mile corridor. However, as shown in Table 1, while comparing to Route 1 utilizing I-8, Route 2 shows a 13 percent higher relative crash rate.

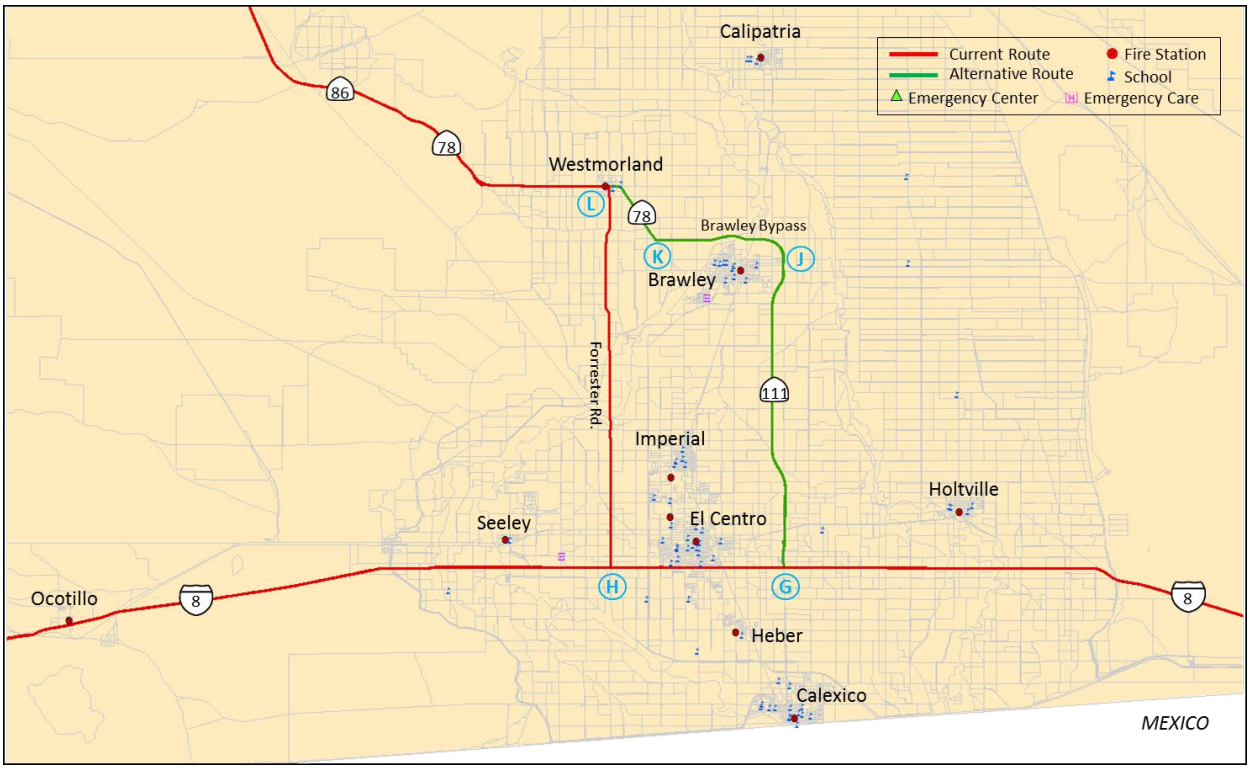

Figure 2: Proposed Alternative Routes Evaluated for Transporting Inhalation Hazards in the Brawley-El Centro Area

As the emergency buffer is increased from one mile for transporting explosives to seven miles for transporting inhalation hazards, the difference in potential population or housing exposures along Route 1 and Route 2 is reduced significantly. Thus, crash rates may have more weight than potential population and housing exposures in calculating relative population and housing risks. With a 13 percent higher relative crash rate, Route 2 possesses a 12 percent greater relative population or housing risk than Route 1. However, the differences in these relative risks are less than the FHWA's 25 percent threshold. When emergency-buffer distances are reduced along the routes, population and housing density in the buffer zones regain the primary role in estimating the relative risks. With other factors unchanged and only the buffers reduced to one mile, as calculated for the explosives transportation routes, Route 1 shows an almost more than double population or housing risk than Route 2.

As proposed in recent years by local authorities and organizations, the Forrester Rd. Interregional Corridor project was designed to widen the existing two-lane roadway into a four-lane to six-lane expressway, and the Westmorland Bypass project was planned to construct a four-lane expressway around the City of Westmorland. Before the completion of these two projects, Forrester Rd. was not in compliance with STAA requirements.

Because the differences in associated relative risks between Route 1 and Route 2 are lower than the FHWA's 25 percent threshold within seven-mile buffers of the routes, the relative risks of

Route 1 are double the relative risks of Route 2 for population and housing units closer to the routes, and Forrester Rd. may inherit higher associated risks since it is not an STAA highway, the CHP proposes to remove Forrester Rd./CR S30 between I-8 (Point H) and SR 78/SR 86 (Point L) from the inhalation hazards route designation; and add SR 111 between I-8 (Point G) and SR 78 (Point J), and SR 78 between SR 111 (Point J) and SR 86 (Point L) into the designation, as shown in *Figure 2*.

Table 1: Routes Evaluated for Transporting Inhalation Hazards in the Brawley-El Centro Area

Alternate Routes	Route Length (mile)	Length Difference (mile)	Ratio (alternates/ minimum)	Estimated Driving Time (minute)	Ratio (alternates/ minimum)	Potential Population Exposure (<= 1 mile)	Ratio (alternates/ minimum)
Route 1: GHL	25.3	1.1	1.04	28	1.12	133,455	1.01
Route 2: GJKL	24.2	0.0	1.00	25	1.00	131,644	1.00

Table 1 (continued)

Alternate Routes	Potential Population Impact (people per mile)	Ratio (alternates/ minimum)	Crash Rate (crashes per million vehicle miles traveled)	Ratio (alternates/ minimum)	Relative Population Risk (people per million vehicle miles traveled per road mile)	Ratio (alternates/ minimum)
Route 1: GHL	5,285	1.00	0.11	1.00	592	1.00
Route 2: GJKL	5,441	1.03	0.13	1.13	691	1.17

Table 1 (continued)

Alternate Routes	Relative Population Risk (people per million vehicle miles traveled along route)	Ratio (alternates/ minimum)	Number of Schools (<= 1 mile)	Ratio (alternates/ minimum)	Potential Housing Exposure (<= 1 mile)	Ratio (alternates/ minimum)	Relative Housing Risk (housing per million vehicle miles traveled along route)	Ratio (alternates/ minimum)
Route 1: GHL	14,950	1.00	51	1.00	42,264	1.01	4,735	1.00
Route 2: GJKL	16,714	1.12	54	1.06	41,698	1.00	5,294	1.12

In summary, as shown in *Figure 2*, the proposed regulatory amendments will remove 18.3 miles of Forrester Rd./CR S30 (between Point H and L) from the existing designated routes, and extend 24.2 miles of the designated routes, including:

- SR 111 (between Point G and J), 14.3 miles; and
- SR 78 (between Point J and L), 9.9 miles.

The proposed regulation amendments will also change a map label from an inspection stop to a required inspection stop for the newly upgraded In-Ko-Pah Brake Check and Truck Rest Area

along I-8 about 40 miles west of El Centro. *Figure 3* illustrates proposed Map 7, updating the inhalation hazards routes designated in the Brawley-El Centro area.

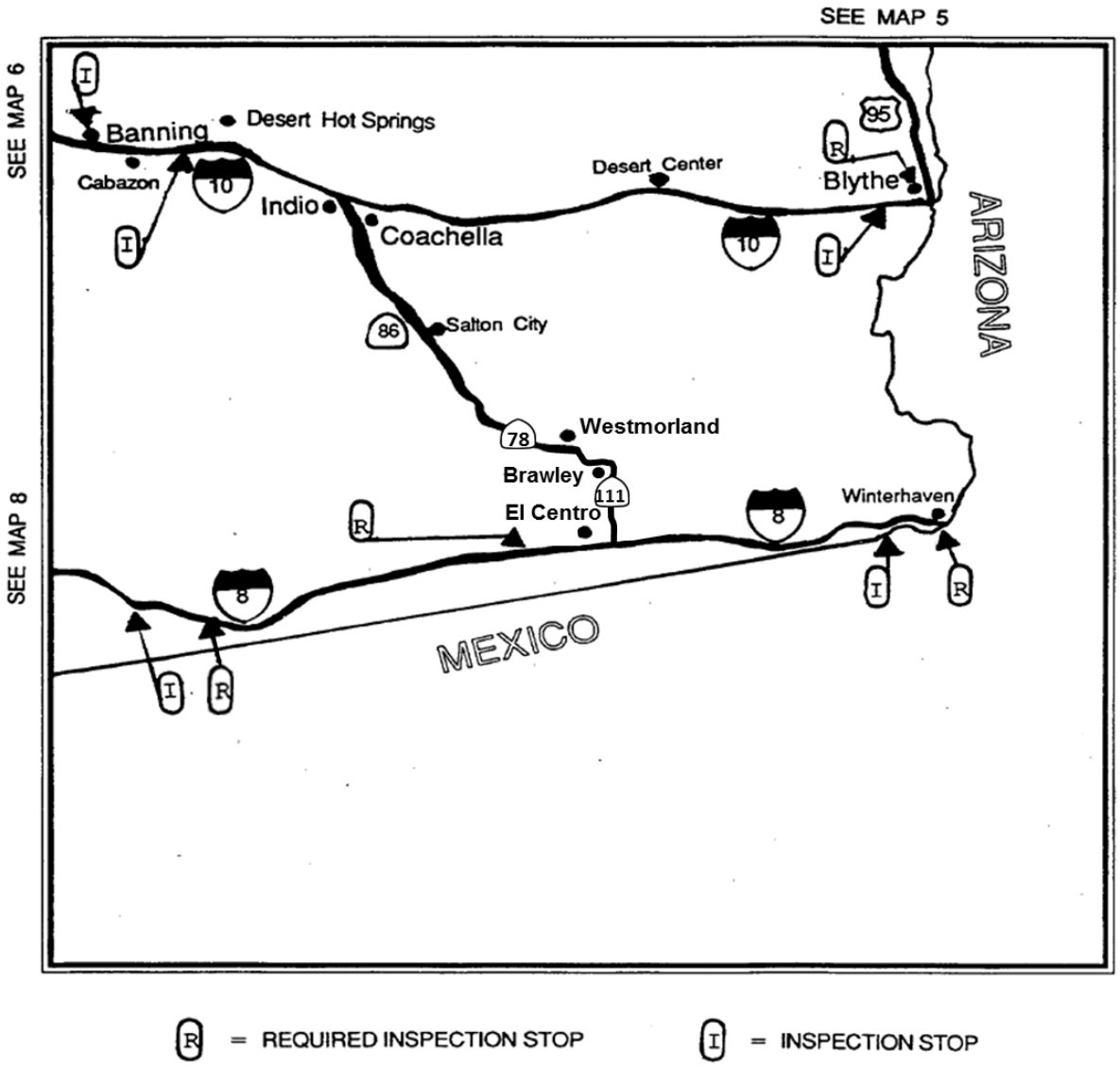

Figure 3: Proposed Map 7 Updating Inhalation Hazards Routes Designated in the Brawley-El Centro Area

STUDIES/RELATED FACTS

The evaluation of possible routes follows the recommended methodologies outlined in the Highway Routing of Hazardous Materials-Guidelines for Applying Criteria (FHWA-HI 97-003) published by the FHWA of the U.S. DOT. The data used for this analysis was obtained from the 2010 census survey conducted by the U.S. CB, the 2012 emergency facility sites composed by the SCEC at the USC, additional locations of fire stations received from the ICFD, the traffic volume counts compiled by Caltrans, the crash incidents collected in CHP's SWITRS, and the highway length and transit time derived from Google Earth and Google Maps. When data is not

available for certain segments of local roads, the best estimates on traffic volume counts and/or crash rates are applied. The evaluation was conducted using a GIS with a seven-mile buffer zone of the routes referenced in the 2016 ERG issued by U.S. DOT's PHMSA.

CONSULTATION WITH OFFICIALS

The proposed amendments have received concurrence from the CHP's Border Division, BFD, ECFD, WFD, WPD, ICFD, SFM, and Caltrans. After the proposed regulation amendments become effective, the adopted regulation amendments will be provided to the PHMSA to update the national registry of hazardous materials routing.

ALTERNATIVES

Other than the alternatives discussed above, no reasonable alternative considered by the CHP, or otherwise identified and brought to the attention of the CHP, would be more effective in fulfilling the purpose for which the action is proposed, or as effective and less burdensome to affected private persons, than the proposed action. The alternative of making no changes to the existing regulations was rejected because it fails to keep information current in the CCR. Failing to provide updated routes to carriers may increase potential risks of detrimental hazards while transporting inhalation hazards in the Brawley-El Centro area.

LOCAL MANDATE

These regulations do not impose any new mandates on local agencies or school districts.

ECONOMIC IMPACT ANALYSIS

Creation or Elimination of Jobs

The CHP has made an initial determination that this proposed regulatory action will neither create, nor eliminate, jobs within the State of California because the regulation only extends 24.2 miles and removes 18.3 miles of designated inhalation hazards routes. The transportation of inhalation hazards by commercial vehicles along the discussed routes presents only a very small portion of the total vehicle movement in the state.

Creation of New Business, or Elimination or Expansion of Existing Business

The CHP has not identified any significant adverse impact on the creation of new businesses, or elimination or expansion of existing businesses within the State of California. Businesses involved in the transportation of inhalation hazards will have more consistent and updated information on designated routes in the state. The proposed regulatory action will not create new

businesses, or eliminate or expand any existing business by transporting inhalation hazards via the updated routes.

Benefits of the Regulation

This proposed regulatory action will continue to provide a nonmonetary benefit to the protection of the health and welfare of California residents, workers, and the environment. The changes to the application of the regulation are not substantive and bring the regulation in conformance with existing statute. The proposed changes update and clarify safe and efficient routes designated for carriers transporting inhalation hazards, and contribute to transportation safety and public health.

BUSINESS IMPACT TO THE STATE

Based on the economic impact analysis, the CHP has made an initial determination that the proposed regulatory action would have no significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposed regulatory action updates designated highway routes for commercial vehicle carriers transporting inhalation hazards in California.

FISCAL IMPACT TO THE STATE

The CHP has determined these regulation amendments will result in:

- No significant increased costs for persons or businesses;
- No significant compliance costs for persons or businesses directly affected;
- No discernible adverse impact on the quantity and distribution of goods and services to large and small businesses or the public;
- No impact on the level of employment in the state; and
- No impact on the competitiveness of California to retain businesses.