# DEPA KATHLEEN BABINEAUX BLANCO

GOVERNOR

### DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS

## **Public Safety Services**



STATE FIRE MARSHAL

### INTERPRETIVE MEMORANDUM 2006-02

To: Licensed Architects

**Licensed Engineers** 

Felicia Cooper, Deputy State Fire Marshal Administrator

Stephen Gogreve, Manager of Inspections Pat Aronstein, Manager of Inspections

Plan Review Staff

From: Henry H. Fry, Deputy Assistant Secretary

Date: February 17, 2006

Re: Head Height at Automotive Service Lifts

Some types of automotive service lifts on the market, such as 2-post and 4-post lifts, typically provide less than the required minimum 80-inch head clearance, when exiting from under a raised lift.

Please note the following code excerpts from NFPA 101, 2003 edition:

- 3.3.136\* Means of Egress. A continuous and unobstructed way of travel from <u>any point</u> in a building or structure to a public way consisting of three separate and distinct parts: (1) the exit access, (2) the exit, and (3) the exit discharge.
- 7.1.5.1 Means of egress shall be designed and maintained to provide headroom in accordance with other sections of this Code, and such headroom shall be not less than 90 inches, with projections from the ceiling not less than 80 inches nominal above the finished floor, unless otherwise specified in 7.1.5.1.1 and 7.1.5.1.2.
- 7.1.5.1.2 Headroom in industrial equipment access areas as provided in 40.2.5.2 shall be permitted.
- 40.2.5.2.1 Industrial equipment access walkways, platforms, ramps, and stairs that serve as a component of the means of egress from the involved equipment shall be permitted in accordance with the applicable provisions of Chapter 7 as modified by Table 40.2.5.2.1.

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Table 40.2.5.2.1 Industrial Equipment Access Dimensional Criteria

Minimum horizontal dimension of any walkway, landing, or platform	22 inches clear
Minimum stair or ramp width	22 inches clear between rails
Minimum tread width	22 inches clear
Minimum tread depth	10 inches
Maximum riser height	9 inches
Maximum height between landings	144 inches
Minimum headroom	80 inches

Handrails shall be permitted to terminate, at the required height, at a point directly above the top and bottom risers.

40.2.5.2.2 Any means of egress component permitted by 40.2.5.2.1 shall serve not more than 20 people.

The Handbook Commentary to NFPA 101:2.5.2 states that this code section permits industrial equipment access walkways, platforms, ramps, and stairs serving not more that 20 persons to deviate from the more restrictive constraints in Chapter 7 of the code. The code intent for this leniency is due to the following safety practices:

- Occupancy around and under a vehicle lift is restricted to trained employees, only.
- Trained employees, typically mechanics, are intimately familiar with their work environment, including low head height at automotive service lifts.
- The dimension leniencies at Section 40:2.5.2 are contingent upon the occupancy in the area not exceeding 20 persons, thereby limiting maximum occupant load in this area.

The NFPA 101 Life Safety Code requires fire protection features that will provide a minimum acceptable level of safety. The features required by the code may be altered, substituted, or omitted if proposed alternative features can be determined to provide a level of safety equivalent to that required by the code.

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## Re: Head Height at Automotive Service Lifts

Based on code intent and the observations presented above, it is a determination of this office that clear head height at less that 80 inches is acceptable regarding clearances at automotive service lifts, subject to the following stipulations:

- 1. The perimeter of the lift area, specifically around each lift device, shall be permanently marked with "caution yellow and black striping", with the inscription, "WARNING LOW HEADROOM UNDER LIFT".
- 2. The finish floor area directly under the automotive lift shall be painted "caution yellow"
- 3. The entire perimeter leading edge of the automotive lift apparatus shall be painted "caution yellow".
- 4. All employees working in and around the automotive lift(s) shall be instructed as to the caution and hazard of this low head room area.

JCC/jcc