



NAVFAC Vertical Transportation Equipment Program

NAVFAC VTE Program Safety Directive AL-2013.01

12 April 2013

SUBJ: AUTOMOTIVE LIFT SURVEY OF SUSPENSION WIRE ROPE

Primary Responsibility: NAVFAC VTE Program Lead Certifying Officials, Navy Wide

Encl: (1) NAVFAC Mid-Atlantic Safety Office Near-Miss Notice
(2) NAVFAC VTE Program Safety Survey 12 April 2013

1. On 29 March 2013, Encl (1) was issued as a result of catastrophic failure of the wire rope suspension means on a [REDACTED], 12K lb capacity, four-post automotive lift in Norfolk, VA. The lift design utilizes steel wire ropes to raise and lower the vehicle support ramps. This lift model was manufactured approximately 1988 through 1998.
2. On this lift, the suspension wire ropes have a manufacturer applied plastic coating. The problem with the plastic coating is that it does not allow for effective inspection for breaks in the individual wires that form the wire rope. The plastic coating also has the potential to trap moisture inside the wire rope which can cause rust and corrosion.
3. The NAVFAC VTE Program Manager and Deputy Program Manager obtained a section of the failed wire rope during a site visit made to investigate the cause of the incident. They conducted a forensic examination of the wire rope and found that there are numerous broken wires on the inside of the wire rope. However, none of the broken wires are evident on the outside surfaces of the wire rope, even with the plastic coating stripped away.
4. A review of automotive lift manufacturer's recommendations regarding wire rope service life and replacement revealed that while some manufacturers identify recommended service life for wire rope replacement, others do not. In addition, the ANSI/ALI ALIS:2009, Safety Standard for Automotive Lifts, does not address maximum wire rope service life in the Planned Service Procedure section related to inspection criteria for wire rope replacement.
5. In order to establish a baseline for maximum wire rope service life for wire rope suspension means on automotive lifts, the NAVFAC VTE Program has determined that all automotive lifts equipped with coated suspension wire ropes that have been in operation for 6 years and greater must be removed from service immediately. Coated suspension wire ropes shall be replaced with non-coated wire ropes that are designed for automotive lift service and operation.



6. Additionally, the survey shall determine the installation date for all existing automotive lift suspension wire ropes. The wire ropes shall be identified with an installation date tag. Any automotive lift with suspension wire ropes in operation for 10 years and longer must be removed from service immediately. Replacement wire ropes must meet lift manufacturer's specifications.

7. NAVFAC FEC VTE Program Lead Certifying Officials (LCO) are directed to survey all automotive lifts in Navy Facilities within the FEC AOR, in accordance with Encl (2). Survey results shall be reported to the NAVFAC VTE Program Manager.

8. Questions regarding this directive may be addressed to [REDACTED], NAVFAC Engineering & Expeditionary Warfare Center, [REDACTED]

[REDACTED]

NAVFAC Engineering and Expeditionary Warfare Center



NAVFAC Vertical Transportation Equipment Program
SAFETY SURVEY 12 April 2013

Survey Process for compliance with:
NAVFAC VTE Program Safety Directive AL-2013.01, Vehicle Lift Survey of Lift
Suspension Wire Ropes

I. On 29 March 2013, Encl (1) was issued as a result of catastrophic failure of the wire rope suspension means on a [REDACTED], 12K lb capacity, four-post vehicle lift in Norfolk, VA. The lift design utilizes plastic coated steel wire rope to raise and lower the vehicle support ramps.

II. By issuance of the referenced NAVFAC VTE Program Safety Directive of 12 April 2013, NAVFAC FEC VTE Program Lead Certifying Officials (LCO) are directed to utilize NAVFAC Certified VTE Inspectors to conduct a physical survey of all vehicle lifts within their AOR. The purpose of the survey is to identify and remove from service, all vehicle lifts with coated suspension wire rope and all lifts with wire rope that have the highest probability of excessive metal fatigue.

III. Use the following process to conduct survey and report findings:

1. Review the NAVFAC FEC VTE inventory and prepare an EXCEL data sheet with a listing of automotive lifts that utilize wire rope for lifting and suspension.
2. For each lift, include the following: Vehicle Lift Manufacturer, Lift Capacity, Lift Installation Date, Suspension Wire Rope Installation Date, Wire Rope size, Wire Rope Coating (Y/N), Action Taken (Left in Service/Removed from Service).
3. NAVFAC Certified VTE Inspectors shall conduct a physical survey of all wire rope suspension vehicle lifts and complete the survey data sheet.
4. Identify, and remove from service, all automotive lifts that are equipped with coated suspension wire rope in operation for 6 years or longer.
5. Identify, and remove from service, all automotive lifts equipped with suspension wire rope in operation for 10 years or longer.
6. Forward the results of the survey to NAVFAC VTE Program Manager. Include electronic pictures of all vehicle lifts with coated wire rope.

IV. Comments or questions regarding this survey process may be addressed to:

[REDACTED], NAVFAC VTE Program Manager [REDACTED], DSN 262 or
[REDACTED], NAVFAC Deputy VTE Program Manager [REDACTED], DSN 262

NAVFAC Engineering and Expeditionary Warfare Center, [REDACTED]
[REDACTED]

(Enclosure 2)