

A **41 year old male** employee was fatally injured when he fell from a ladder used to access the roof of an apartment building during a maintenance activity with the heating and air conditioning unit. The 2-ton AC unit was located on the roof of a two story building approximately 15 feet from the roof's edge. The work order assigned detailed, "A/C does not cool properly".

It was determined that a ladder was set up on the second story balcony and crossed over an opening between the balcony guardrail and the exterior wall of the building in order to reach the roof of the two story building. Due to the victim's tools (gauges, a meter, and a screwdriver) lying beside the unit, it is known that he had been up on the roof at the air conditioning unit prior to the incident. According to interviews, the tools on the roof indicated that the victim diagnosed the unit and realized he needed to retrieve refrigerant. It was learned that most of the time cylinders of refrigerant are carried up the ladder rather than being hoisted because there is a risk of breaking a 1<sup>st</sup> level window or striking a resident. Cylinders of refrigerant typically weigh 25-30 pounds. It is believed that the victim fell through the opening (approximately 30" wide by 12") between the guardrail and exterior wall of the apartment building to land on the ground level 18' below while ascending the ladder with the cylinder of refrigerant.

During the inspection it was established that the victim weighed close to 400 pounds and that the ladder provided by the company for use was not designed to withstand over 600lbs capacity. The ladder was a 16' aluminum Louisville extension ladder, model AE3216, with a sticker indicating that it had a maximum load capacity of 250 pounds.

### **Citation(s) as Originally Issued**

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

#### **Citation 1 Item 1**

**Type of Violation: Serious**

**\$4,000**

29 CFR 1910.23(b)(13): Employees were carrying an object or load that could cause the employee to lose balance and fall while climbing up or down the ladder:

In that employees carried cylinders of air conditioning refrigerant weighing approximately 25 pounds while climbing up and down portable ladders, exposing employees to fall hazards of up to 18 feet to the ground level below.

#### **Citation 1 Item 2**

**Type of Violation: Serious**

**\$4,000**

29 CFR 1910.23(c)(3): The employer did not ensure that ladders were not loaded beyond the maximum intended load:

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In that the total weight of the employee, tools, and equipment exceeded the 250 pound load capacity of the 16 foot Louisville aluminum extension ladder, model AE3216, used to access the roof, exposing an employee to a fall hazard of up to approximately 18 feet to the ground level.

**Citation 1 Item 3**

**Type of Violation: Serious**

**\$4,000**

29 CFR 1910.23(c)(11): Portable ladders used to gain access to an upper landing surface did not have side rails that extended at least 3 feet (0.9 m) above the upper landing surface:

In that the Louisville 16 foot aluminum extension ladder used by an employee to access the flat roof of the two story apartment building extended approximately 1 foot above the upper landing surface, exposing an employee to a fall hazard of up to 18 feet to the ground level below.

**Citation 1 Item 4**

**Type of Violation: Serious**

**\$1,200**

29 CFR 1910.30(b)(1): The employer did not train each employee on or before May 17, 2017 in the proper care, inspection, storage, and use of equipment covered by this subpart before an employee uses the equipment:

In that employees required to use portable ladders to access second and third story roofs of the apartment complex were not trained in the proper care, inspection, and use of ladders.

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