Case 230. 21-year-old window cleaner died when he fell approximately 60 feet while suspended over the edge of a building roof as he was preparing to descend in a boatswain chair.

A 21-year-old male window cleaner died when he fell approximately 60 feet while suspended over the edge of a building roof as he was preparing to descend in a boatswain chair. The decedent was seated in the boatswain chair, wearing a full body fall harness, and suspended over the edge of a building roof when the roof rigger parts separated causing him and the separated roof rigger piece to fall to the sidewalk below. Two days prior to incident, the decedent and his coworker carried their respective roof rigger parts to the roof and assembled them. The beam that suspended the worker had a post at each end that was inserted into a female post holder in the base. The base was oriented in a perpendicular fashion to the worker's beam support and posts. The female opening was slightly larger than the male end of the post. After inserting the post, the post was secured in place using a bolt and cotter pin. The base was composed of two separate parts; the part most distant from the roof was the counterweight. The decedent noticed he was missing a bolt as he was assembling the rigger. The decedent obtained the bolt later, but prior to beginning work that day, he did not replace the missing bolt. The base closest to the roof edge was properly secured to the beam support post. The post/base missing the securing bolt was located on the counterweight side of the rig. On the day of the incident, the decedent and his coworker made one drop from roof to ground power washing the building windows. The crew returned to the roof, which was approximately 60 feet above the ground, and moved the roof riggers to the next area. The decedent secured his fall protection lifeline to the roof rigger instead of the roof anchor points. The decedent was in the boatswain chair suspended over the roof edge when his coworker saw the decedent drop a foot or two, and then stop. The unsecured support post lifted out of the counterweight post holder, and the decedent, the roof rigger base closest to the roof edge, and the supporting rig roof rigger fell to the sidewalk. The counterweight remained on the roof. The decedent's coworker ran to the side of the roof, saw the decedent on the ground, and then quickly exited from the roof to ground level. Bystanders called for emergency response while his coworker called the company owner. Emergency response transported him to a local hospital where he was declared dead.

MIOSHA General Industry Safety and Health Division issued the following citations at the conclusion of its investigation:

SERIOUS: MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ACT, ACT 154, P.A. 1974, AS AMENDED, SECTION 11(a).

> The employer did not furnish to each employee, employment and a place of employment, which was free from recognized hazards that were causing or were likely to cause death or serious physical harm to the employee in that employees were exposed to fall hazard of 60 feet. Employee(s) engaged in window cleaning activities were exposed to fall hazards up to 60 feet at the building. The following industry recognized practices were not in place on the day of the incident: 1) Employer did not require a visual inspection after the roof rigger was assembled and during use to ensure that all nuts and bolts were securely in place. 2) The employer did not adequately supervise the use of the roof rigging equipment to ensure that safe working practices were observed; according to ASME/ANSI A 39.1-1995, Safety Requirements for Window Cleaning.

Among other methods, one feasible and acceptable abatement method to correct this hazard is to implement a safety inspection program meeting ASME/ANSI A 39.1-1995, Safety Requirements for Window Cleaning which includes at least the following: 1) Inspection of equipment each day before use and during use. 2) Adequate supervision to ensure safe working practices are being followed.

SERIOUS: GENERAL PROVISIONS, PART 1, RULE 11(a).

Training was not provided to each newly assigned employee regarding the operating procedures, hazards, and/or safeguards of the job.

Not shown the roof anchors on the building where window washing was to take place.

SERIOUS: SCAFFOLDING, PART 5, RULE 529(3):

A safety belt and lifeline were not used in a boatswain's chair:

Inadequate tie off for the life line, in that it was attached to the roof rigger.