

Accident Analysis for Rope Access																
Source	Date Incident	Location	Abstract *	Comments	Equipment	Height	Incident Count	Equipment Failure Misuse	No Independent Fall Protection	Lack of Training	Lack of Sound Anchorage	Height Related	Over 300'	Wind Related	NY, NY	CA
IWCA Accident Analysis for the Window Cleaning Industry 1995	1/7/1977		The window cleaner seated in a window washing rig at the sixth floor level fell to his death when the rope or ropes of his window washing scaffold broke. It was determined that a portion of the rope had been worn beyond a safe working condition. The deceased was tied to a lifeline. However, he fell approximately 40 feet and the weight of his body snapped the lifeline. The tackle had deteriorated to the extent that it was unsafe for use and the employees safety belt lanyard was not attached to the lifeline the length to prevent the employee from falling a distance greater than six feet in the event of tackle failure.	Equipment failure. Inappropriate equipment.	RDS?	40+ feet	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	08/18/86	Austin, TX	Window cleaner falls to death at Austin office building from 29th floor to 14th floor.	Misuse of equipment. No fall protection.	RDS	29 floors	1	1	1				1			
IWCA Accident Analysis for the Window Cleaning Industry 1995	10/30/86	Cedar Rapids, IA	Window Cleaner killed in six story fall using Bosun's chair and pulley device	?	RDS	6 floors	1		1							
IWCA Accident Analysis for the Window Cleaning Industry 1995	6/2/1987	Temple, TX	Worker fell about 40' while using RDS. Did not wrap rope enough times around sky genie descent device. Had no independent safety line. Worker paralyzed and skin on hands burned.	No independent safety line and harness. Misuse.	RDS	6 floors	1	1	1							
IWCA Accident Analysis for the Window Cleaning Industry 1995	6/29/1987	Woodbridge, NJ	Window cleaner fell from the 11th floor. Was connected to both a chair and a hook called a Sky-Genie which police said apparently malfunctioned.	No independent safety line. Possible misuse or equipment failure.	RDS	11+ floors	1	1	1							
IWCA Accident Analysis for the Window Cleaning Industry 1995	07/29/87	St. Louis, MO	Window cleaner was rappelling down the side of the building with his rope hanging in front of an exit to an underground parking garage. As an person left the parking garage, the rope got entangled in the rear bumper, pulling the window cleaner to his death.	Misuse. Failure to protect equipment.	RDS	?	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	09/28/87	Denver, CO	Window cleaner died after a 45 feet fall. His rope broke, perhaps accidentally cut by a scraper he was using to clean windows.	No independent fall protection. Failure to protect rope.	RDS	45+ feet	1	1	1							
IWCA Accident Analysis for the Window Cleaning Industry 1995	02/25/88	Chicago, IL	Worker saved by his safety harness when the main line of his bowsun's chair snapped. Fire fighters broke out a window to rescue him. The shattered glass came tumbling down and he was pulled in through the opening.	Equipment Failure- Misuse.	RDS	?	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	03/04/88	Salt Lake City, UT	Window Cleaner fell about 50 feet to her death after her rope and chair rigging came loose from a top the building where she was preparing to wash windows.	Misuse. No independent fall protection	RDS	50+ feet	1	1	1							
IWCA Accident Analysis for the Window Cleaning Industry 1995	03/16/89	Atlanta, GA	Worker fell 20 stories to his death while washing windows. Police at the scene said they believe the harness snapped causing him to fall.	Equipment Failure.	RDS	20+ floors	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	04/16/90	Washington, DC	Window Cleaner fell 10 floors while using a Sky Genie device. He was not wearing a safety belt at the time and died the next day.	No fall protection	RDS	10+ floors	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	June-91	Philadelphia, PA	Window cleaner using Sky Genie attaches descent line and lifeline to horizontal sttel cable on roof. Upon clearing the parapet, steel cable parts, sending window cleaner 32 floors to his death.	Misuse, Equipment Failure, No Fall Protection	RDS	32 floors	1	1	1				1			
IWCA Accident Analysis for the Window Cleaning Industry 1995	07/01/91	San Francisco, CA	Window Cleaner falls 7 stories to his death while using Sky Genie device attached to a rolling outrigger. The front wheels of the outrigger came off the parapet wall, causing the whole device to fall to the ground.	Misuse, No Fall Protection	RDS	7+ floors	1	1	1							

IWCA Accident Analysis for the Window Cleaning Industry 1995	October-91	Bismarck, ND	Window Cleaner fall approximately 35 feet and sustains serious injuries after his descending line broke.	Equipment Failure, No Fall Protection	RDS	35+ feet	1	1	1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	October-92	Washington, DC	Window Cleaner using RDS falls from building. Apparently, was not attached to his safety lines at the time of the fall.	No Fall Protection	RDS		1		1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	1993	Portland, OR	Man on second day on the job as a window washer, fell five stories to his death. There was no explanation why additional safety lines-if they were in use, didn't prevent the man's death when his main line supporting him gave way. Employer was fined because worker was not using a lifeline that would have safely held him. Apparently, the knot in his main supporting line failed which caused the fall.	Misuse, No Independent Fall Protection	RDS	?	1	1	1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	April-93	Tampa, FL	Window cleaner cleaning a 50 story building becomes stranded in descent equipment lines as a result of a wind gust. Employer says that there was never any danger.	Misuse?	RDS	50 floors	1	1					1	1					
IWCA Accident Analysis for the Window Cleaning Industry 1995	June-93	Boston, MA	Window cleaner fell to his death when the anchor his RDS was tied to apparently failed. He was not wearing an independent lifeline which would have prevented this.	No independent fall protection.	RDS	?	1		1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	July-93	Pittsburgh, PA	Window cleaner falls while using RDS. Apparently, no fall protection equipment was being used because his co-worker said that he thought he just let go of his descent line and descended very fast to the ground.	No independent fall protection.	RDS	?	1		1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	01/06/94		Window Cleaner using RDS attempted to descend on frozen ropes. He became stuck because the ropes would not go through the device. Company management arrived at the jobsite to rectify the situation but the fire dept. chief took precedence over the matter and forced the issue by breaking a window to rescue the worker.	Misuse.	RDS	?	1	1											
IWCA Accident Analysis for the Window Cleaning Industry 1995	05/20/94	PA	Window cleaner fell 8 stories to his death. His body was found face down on a seatboard which fell into a courtyard. He had two months experience.	Misuse, No independent fall protection, lack of training.	RDS	8 floors	1	1	1	1									
IWCA Accident Analysis for the Window Cleaning Industry 1995	7/21/1994	Redwood, CA	Window cleaner falls to his death while using Sky Genie Equipment. Building was equipped with davits for transportable suspended scaffolding. Worker attached both his working line and lifeline using knots to an anchorage for perimeter protection. The knots came undone which caused the fall. Because there was no independent lifeline, the window cleaner was killed.	Misuse, No independent fall protection.	RDS	?	1	1	1										1
IWCA Accident Analysis for the Window Cleaning Industry 1995	7/29/1994	Tampa, FL	Window washer fell 10 stories when he lost control of his boatswain's chair and slipped off the edge of the roof. While preparing to clean the windows, he slipped while trying to hook up his chair. He fell more than nine stories before being stopped by some scaffolding. He was working alone at the building.	No Independent Fall Protection	RDS	10 floors	1		1										
IWCA Accident Analysis for the Window Cleaning Industry 1995	9/21/1994		25 year old window washer fell 14 stories to his death when the rope supporting him slipped loose. After securing the line of his chair to a 4 inch pipe on the roof, he climbed over the side of the building to begin washing windows when the rope slipped off of the pipe.	Lack of certified anchorage, No Independent Fall Protection.	RDS	14 floors	1		1					1					
IWCA Accident Analysis for the Window Cleaning Industry 1995	12/14/1994		Worker fell 170 feet to his death while cleaning windows. He was using controlled descent equipment anchored to a portable rooftop rig which he apparently forgot to place the required counterweights on. The rig also cam off the roof during the fall. He neglected both a tieback and most importantly, an independently anchored lifeline.	Lack of certified anchorage, No Independent Fall Protection. Misuse.	RDS	170 feet	1	1	1					1					
IMIS 170746077	3/28/1995		Employee #1 was cleaning windows from a boatswain's chair suspended by a two part line hooked into a Sky Genie. The lifeline was attached to a common anchorage, which in this case was a perimeter cable. The quarter inch cable was spliced in a poor manner that allowed the ends to pull out under load and cause a failure in the anchorage. Employee #1 fell approximately five stories (60 ft) and struck his right foot on a ledge, severely injuring it. He was transported to a nearby medical center and was treated and released.	Anchor Failure	RDS	60'	1							1					
IWCA Accident Analysis for the Window Cleaning Industry 1995	4/4/1995	Cambridge, MA	Window cleaner falls four stories and lives. Was cleaning windows when his rope gave way. He was tied to a safety line, but for some reason the line didn't catch him.	No Independent Fall Protection	RDS	4 floors	1		1					1					

IMIS 171020191	6/6/1995		On June 6, 1995, Employee #1, of a window cleaning company, was attempting to enter a boatswain's chair scaffold. The scaffold did not have extensions to the boom or counterweights. He was not wearing a safety belt and lifeline. The scaffold and the employee fell approximately 50 feet, causing fatal injuries. Two citations were issued for serious violations of 0529(3) and 0541(1).	Not tied to equipment	RDS	50'	1	1	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	6/7/1995	Grand Rapids, MI	Worker fell to his death while working in the six story atrium. He and his co-worker had failed to use safety gear while suspended about 40 feet above a concrete floor. It was determined that he ran into trouble while standing on a bosun's chair suspended from a boom located on a fourth floor balcony. The unit got away from him and there was no backup safety system or device. The safety equipment was in the truck.	Misuse, No Independent Fall Protection.	RDS	40 feet	1	1	1	1								
IMIS 699579	6/14/1995		There were 2 employees washing windows when the support system failed causing one employee to fall 34' and be seriously injured and the other to fall from the roof 48' resulting in death.	anchor. Moving Portable anchor. No fall protection.	RDS	48'	1	1	1	1								
IWCA Accident Analysis for the Window Cleaning Industry 1995	6/14/1995	Forest Park, IL	Could be same incident as above. Two window washers were hospitalized after they fell three stories to a sidewalk. One died of multiple injuries, his co-worker is listed in stable condition. It was said that the scaffold that was being used rolled off the track. Both men fell about 35 feet. OSHA inspectors said the men had lifelines but they were attached to the support device.	anchor. Moving Portable anchor. No fall protection.	RDS	35 feet	1	1	1	1								
IMIS 170376776	7/31/1995		Window washer company, EE #1, a window washer using a boatswain's chair without a separate safety line, fell from the roof top of a nine story building while attempting to attach the descent device to the working rope from a seated position with his legs over the side. EE #1 is unsure exactly what precipitated his fall, but may be the latch for the descent device was not properly secured. While falling, entangled in the boatswain's chair, EE #1 grabbed the working rope in his hands and held on, slowing his fall until the pain became too intense to continue holding. He free fell and landed on a row of plastic garbage cans which broke his fall and fell to the pavement. He sustained 3rd degree burns to both hands, bruising of right shoulder/back area and a lacerated left knee. He was taken by campus police to Alta bates hospital, where he received skin grafts and was released on 8-11-95.	No fall protection. Failure to properly rig.	RDS	9 floors	1	1	1	1								
Boston Herald	9/5/1995	Cambridge, MA	A window washer fell four stories and landed without a scratch. He was cleaning windows 55 feet above the ground when his rope gave way. He was tied to a safety line, but for some reason that line didn't catch him either.	No fall protection. Misuse	RDS	55 feet	1	1	1	1								
IMIS 897769	12/13/1995		On December 13, 1995, at approximately 10:00 a.m. Employee #1 was preparing to wash windows on a 14 story condominium working from a boatswain's chair. Employee #1 had rigged up his repelling equipment and lifeline and had placed them over the side of the building. Employee #1 did not connect to his life line when he went over the parapet wall and did not fully engage the eye of his rappel rack into his locking type D-ring resulting in Employee #1 falling to the ground below.	Not tied off properly. No use of fall protection.	RDS	14 floors	1	1	1	1								
IMIS 170789259	3/27/1996		Window washer with 2 years experience was working alone on a 3-story (about 35-foot height) brick building when fall occurred. He had been on site for &2-1/2 weeks washing windows and caulking windows. It was a partly cloudy day, temperature in low 30s with a light wind. No witnesses reported seeing employee #1 fall. 911 call was placed by a motorist with a mobile phone. Employee #1 was reportedly wearing a repelling harness and secondary safety belt. Harness was connected with a D-ring + figure 8 to a PMI climbing rope which was NOT connected to an anchor point on the roof. Safety belt was not connected to a rope. Injuries included multiple fractures and a closed head injury. Employee #1's head injury resulted in death 8 days following the fall.	Not tied off to anchor.	RDS	35'	1	1	1	1								
IMIS 200850055	8/5/1996		Worker on ground fatally injured and worker on window washing scaffold hospitalized with injuries sustained from bricks and other debris that fell from 21st floor building parapet from which scaffold was suspended. Parapet from which scaffold was suspended had failed due to incorrect secondary tie back wire rope angle was installed at an incorrect angle and excessive overhang dimension on parapet clamp.	Use of unsound anchorage.	RDS or Scaffold	21 floors	1	1	1	1								







OSHA Inspection 306308495 & 306308503	4/30/2003	Syracuse, NY	Employee using a seat harness instead of full body harness.	Improper harness.	RDS	?		1	1										
OSHA Inspection 306124348	5/15/2003	Las Vegas, NV	Two employees were using anchor points which were not designed and approved for window cleaning. Employees were using parapet clamps to support suspended work and the clamps were not tied back to sound anchorages.	No sound anchorages.	RDS	451 feet		1					1		1				
wcmail.net/archives/ presep2003/may_20 03/msg00314.html & OSHA Inspection 305549388	5/15/2003	Boston, MA	Two workers in Boston killed when both fall to ground. Both men had main line and safety line attached to the same horizontal cable strung between two anchors. Cable failed. Used improper wire rope clamps.	No independent anchors for each line. 2 men using same anchors. Use of horizontal cable without engineer design.	RDS	?		1	1				1						
OSHA Inspection 305550048	6/3/2003	Boston, MA	Employees exposed to fall hazards while using roof rollers in conjunction with RDS. Roof rollers did not have a tieback to an independent anchorage point.	No sound anchorage tie-back.	RDS	?		1					1						
AP	7/16/2003	Fort Wayne, IN	Two window washers were left dangling from a building after their safety lines became tangled during a windy rain shower. Winds were gusting to 36 mph. They were stuck on the 14th and 11th floors and were blown about 30 feet away from the building.	Misuse	RDS	14 + floors		1	1									1	
wcmail.net/archives/ presep2003/july_200 3/msg00543/html	7/29/2003	Grand Rapids, MI	Window cleaner saved in Grand Rapids, MI. Apparently he was climbing into his chair from the roof or had just gotten into his chair after climbing down from the roof. Descender must not have been attached correctly. Hung from safety line until rescued.	Poor set-up.	RDS	320 feet		1	1									1	
OSHA Inspection 307116327	1/23/2004	Las Vegas, NV	Employee had been using anchor points that were not approved and designed for window cleaning. The life line had been tied off to the top 2 hand rails of the catwalk and the weight cart tieback had been secured to the metal kick plate of the walkway using an S hook and fabric sling.	Lack of sound anchorage.	RDS	270 feet		1					1						
OSHA Inspection 306812165	4/12/2004	Boston, MA	A horizontal line used as anchorage for supporting a RDS.	No sound anchorage. Lack of independent fall protection.	RDS	?		1					1						
OSHA Inspection 307677369	6/1/2004	Knoxville, TX	Employee was washing windows, working from a boatswain's chair approximately 45 feet above the ground. His primary safety lines were attached to an air cooler unit. The tie-off points failed and he fell 45 feet to the asphalt and was killed.	Lack of Sound Anchorage. No Independent Fall Protection	RDS	45 feet		1					1						
wcmail.net/archives/ presep2004/june_20 04/msg00087.html	6/5/2004	Toronto, Canada	Near accident in Toronto. Anchor had not been inspected for some time and the anchor failed. He was using 2 ropes, but had removed his safety harness while on the drop. Was somehow able to cling to the building until rescued.	Lack of assurance of sound anchorage. Lack of fall protection.	RDS	?		1					1						
OSHA Inspection 306416595	6/9/2004	Hartford, CT	Employees using RDS. Working lines and safety lines both tied to the chair harnesses. Both lines connected to the same static line on the roof. Horizontal synthetic rope static lines on the roof were tied between roof anchors. Safety lines were connected to the static line on the roof using knots. Horizontal lines on the roof were attached to metal roof anchors that had sharp edges. Some equipment in disrepair.	Lack of sound anchorage. Lack of independent fall protection. Improper equipment	RDS	?		1	1				1						
OSHA Inspection 308103027	10/14/2004	Boston, MA	Employees were exposed to fall hazards while using RDS supported from inadequate anchorage. The anchorage for a primary support line and the life line were both anchored to a 4 wheeled portable support device which was not properly tied off nor was it properly rigged for a 4 to 1 safety factor. Life line and main line attached to the same carabiner. Counterweights not properly attached to the portable support device.	Lack of sound anchorage. Lack of independent fall protection. Improper use of equipment.	RDS	9 floors		1	1				1						











OSHA Inspection 313143869	6/10/2009	Birmingham, AL	Employees cleaning exterior windows utilizing RDS were not protected from falling in that they did not have full body harness connected to a separate life line, the ropes being used were over two years old, the system was not connected to an approved anchor point, the ropes were not protected to prevent abrasion, not provision for prompt rescue, equipment not inspected.	No fall protection. No sound anchorage. Failure to inspect equipment.	RDS	?	1	1	1	1								
OSHA Inspection 313200263	6/11/2009	Springfield, MA	Employees were exposed to fall hazards while using RDS to wash the exterior windows of a 17 story building. Primary working lines and safety lines were tied to the same guardrail structure on the roof. Tie off points had unknown strength. Two rack descent devices had excessive wear. Equipment was not inspected prior to use on that day.	No sound anchorage. Failure to inspect and replace worn equipment. No independent fall protection.	RDS	17 floors	1	1	1	1								
OSHA Inspection 307047647 & www.msnbc.com/cle anprintproxy.aspx?1 27661...	6/17/2009	Eau Claire, WI	A suspended window cleaning employee sustained a fall of approximately 6 stories from the roof level to the ground level of an office building. Portable rolling outrigger system was not engineered. , the load supporting roof parapet had not been structurally verified to support the weight, no sound anchorages were provided for the main line or safety line or equipment tie-back, suspended worker was moved horizontally on equipment not designed for this purpose, wheels of portable outrigger were worn, fall arrest systems were not completely worn/assembled prior to approaching the point of suspension, main line and life line were not independent. Equipment was not inspected and was deficient, employees were not trained.	No fall protection. No sound anchorage. Failure to inspect or use equipment properly.	RDS	6 stories	1	1	1	1								
woodtv.com/dpp/news/local/grand_rapids/window_washer	6/17/2009	Grand Rapids, MI	21 year old window washer died after falling about 45 feet from the Grand Rapids Art Museum. "There was not enough weight on the rig and when he went off the building, it just came down on top of him." he said.	No fall protection. Rig not tied back to sound anchorage. Failure to set up equipment as designed.	RDS	45 feet	1	1	1	1								
fox13now.com/news/kstu-window-washer-breaks-window...	6/18/2009	Salt Lake City, UT	A window washer harnessed on a downtown highrise building lost control of his chair rigging and fell three stories. While he was lowering himself down, the rigging on his rope chair failed. The man was able to swing himself and break through a window to stop his fall.	Rope or other equipment failure. Failure to protect or inspect and replace equipment	RDS	5 floors	1	1										
OSHA Inspection 312851728	7/20/2009	Austin, TX	Employees exposed to falls of 125 feet while cleaning windows from RDS. Not equipped with and improperly utilized independent fall arrest systems. Equipment and components with defects were not removed from service.	No independent fall arrest systems. Failure to inspect and replace damaged equipment.	RDS	125 feet	1	1	1									
OSHA Inspection 312142946	8/3/2009	Colorado Springs, CO	Employees were exposed to falls in excess of 50 feet while performing window cleaning operations using RDS. The life line and tie-back line for the portable rolling outrigger unit were attached to structures on the roof with unknown strengths that were not certified anchor points. Employees were not using full body harnesses as part of their fall protection system. A strap had been removed from the chair used. Employer did not have an effective rescue plan. Employer did not provide supervision or training. Area below work was not effectively barricaded. Rope had visible wear. Roof was not rated for the load of the portable outrigger.	No sound anchorage. Improper equipment. No training. No supervision.	RDS	50 feet	1			1	1							
OSHA Inspection 313886848	10/29/2009	Medford, MA	Employees were exposed to fall hazards resulting from improperly rigged/anchored Sky Genie descent control chair system. Improper rigged/anchored parapet clamp. Roof top attendant without fall protection.	No sound anchorage. No independent fall protection. Improper use of equipment.	RDS	50 feet	1	1	1	1								











<a href="http://www.theolympian.com/2014/07/17/3230439_olympia-firefighters-rescue-window.html?rh=1">http://www.theolympian.com/2014/07/17/3230439_olympia-firefighters-rescue-window.html?rh=1</a>	7/17/2014	Olympia, WA	Fire Department rescues two window washer found hanging from their safety lines. Roof rig seen in picture hanging with them.	RDS	6 floors	1	1	1								
<a href="http://www.wxyz.com/news/region/detroit/video-window-washer-rescued-after-dangling-from-building-in-detroit">http://www.wxyz.com/news/region/detroit/video-window-washer-rescued-after-dangling-from-building-in-detroit</a>	12/10/2014	Detroit, MI	Window cleaner was dangling in rope descent system in Detroit and needed to be rescued. Appears to have slipped out of his chair.	RDS	4+ floors	1	1	1								
<b>Totals</b>						<b>159</b>	<b>109</b>	<b>110</b>	<b>24</b>	<b>73</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>3</b>	
*IMIS Abstracts are verbatim from IMIS database except company and employee names have been removed and replaced with non-specific wording.																

