Assortment of Trench Accidents and Deaths

- **9/24/95, Bloomfield Township MI**, Injuries=2, Fatalities=1, Accident type=Cave-in One worker died and two were injured when a dirt wall caved-in on them. The workers were constructing a sewer when the accident occurred.
- **10/1/95, Fort Smith AR**, Injuries=, Fatalities=2, Accident type=Cave-in The death of two workers in a sewer trench cave-in at a landfill expansion has led to a lawsuit against the city and an engineering firm. Witnesses have said that although shoring equipment was at the site, the trench had not been shored. The excavation company that hired the two victims was not named in the lawsuit, because of a new worker's compensation law in Arkansas that protects employers from being sued for damages in cases where an employee is injured or killed. The lawsuit contends the defendants failed to establish safety policies and failed to ensure the employer adhered to safety regulations.
- 10/12/95, West Hartford CT, Injuries=, Fatalities=1, Accident type=Cave-in More than \$100,000 in fines have been levied against a contractor after an employee died in a trench cave-in. Investigators found what they termed "willful violations" when they examined the sewer installation project. The trench had not been shored, and OSHA investigators found another unshored trench when they investigated the site a month later. OSHA'S regional director urged the Metropolitan District Commission, which operates the sewer system, to implement safety and oversight procedures for its contractors.
- 10/18/95, Beaumont TX, Injuries=1, Fatalities=0, Accident type=Cave-in A worker was injured when a side of a trench caved-in beneath his feet. The worker was helping to install water mains when the accident occurred. He was pitched into the 15-foot trench when the side collapsed sustaining unreported injuries. He was kept overnight in a hospital for observation.

1/22/96, Maryville TN, Accident type=Cave-in Two men were trapped when a 12-foot-deep trench caved in while they were installing sewer lines. They suffered only minor injuries and were rescued by firefighters and city wastewater department personnel. One man was buried to his waist and the other to his knees. News media quoted the men's employer as saying the trench had been properly sloped. A photo accompanying one newspaper report showed minimal sloping.

1/25/96, Naugatuck CT, Injuries=, Fatalities=1, Accident type=Cave-in A worker applying waterproofing to the wall of a basement on a new house was killed when the trench around the foundation caved in on him. He was buried for about eight minutes before co-workers could uncover his head, and he never regained consciousness. A fire department spokesman said the ground had become unstable from a freeze/thaw cycle, combined with recent heavy rain. A large backhoe being used at the scene may also have contributed. News accounts made no reference to any shoring at the site.



2/13/96, Rarmville VA, Injuries=, Fatalities=1, Accident type=Cave-in A 23-year-old employee of an excavation company was killed when a trench collapsed, burying him beneath tons of dirt. It took rescuers about seven hours to recover his body. They were delayed by lack of trench rescue equipment to shore the sides of the excavation and protect the rescuers. The attorney for the excavation company told news media there was no indication anyone had done anything wrong.

- 2/22/96, Statesville NC, Injuries=0, Fatalities=1, Accident type=Cave-in Statesville NC - (2/23/96) A worker was killed when a trench caved in on him, burying him beneath three feet of dirt. A co-worker uncovered him within a few minutes, but paramedics arriving on the scene were unable to revive him. Police reports state that the ditch had not been shored.
- 2/23/96, Statesville NC, Injuries=, Fatalities=1, Accident type=Cave-in A worker was killed when a trench caved in on him, burying him beneath three feet of dirt. A co-worker uncovered him within a few minutes, but paramedics arriving on the scene were unable to revive him. Police reports state that the ditch had not been shored.
- 3/7/96, Layton UT, Injuries=0, Fatalities=1, Accident type=Cave-in A trench cave-in which buried a 20-year-old worker up to his waist was followed by a water pipe rupture. Some 50:000 gallons of water filled the 25-foot deep hole, drowning the man as fellow workers attempted vainly to pull him out with a rope. Two hours later, when the water had been pumped out of the hole, emergency personnel found the victim's body with one leg wedged tightly beneath the broken 6-inch water pipe. The other leg was wedged beneath a new water pipe that he had been installing. A early account said his co-workers may have been digging around him with a backhoe to free him when the water pipe ruptured. However, the co-workers denied this, saying they used only hand shovels.
 3/11/96, Seattle WA, Accident type=Cave-in

A worker servicing a micro-tunneling machine 20 feet below the street was trapped when a section of 36-inch sewer line that had just been installed by the machine caved in. The machine had installed 400 feet of sewer and the worker rolled down the line on a skateboard-like device to service the machine. As he reached it, the new pipe caved in behind him. He used a telephone on the microtunneling machine to call for help and was rescued unharmed two hours later. Rescuers had to sink a vertical shaft and shore it in order to get down to the trapped man.

4/3/96, West Haven UT, Injuries=, Fatalities=1, Accident type=Cave-in A 19-year-old worker died when a 9-foot-deep trench dug for a water line caved in on him. He co-workers had dug him out by the time emergency medical personnel arrived, two minutes after being summoned. He was not breathing, but they were able to restore a faint pulse, which faded on the way to the hospital. One rescue official said the death may have been due to crushing injuries rather than suffocation.



- **4/11/96, Chatsworth CA**, Injuries=, Fatalities=1, Accident type=Cave-in A worker died when a sewer line burst, causing the trench in which he was working to cave in. Firefighters had to cut through a cement wall to retrieve the body.
- **4/24/96, Wilmington NC**, Injuries=1, Fatalities=0, Accident type=Cave-in A worker laying sewer pipe for the city was trapped for more than 20 minutes when a trench caved in on him. He was completely buried face down under four feet of mud. Fast action by fellow employees rescued him before rising ground water could reach his face. One quickly dug his head out, while a second held his neck back. A fire department official said the accident could have been prevented if the trench walls had been shored.
- **5/6/96, Monterey CA**, Injuries=1, Fatalities=, Accident type=Cave-in A 27-year-old worker was in stable condition with a back injury after being trapped beneath dirt and rock when a trench caved in. He was part of a crew working on a saltwater intrusion pipeline at the time of the accident.
- 5/7/96, Plover WI, Injuries=, Fatalities=1, Accident type=Cave-in A 23-year-old worker died in an 11-foot-deep trench when sandy soil gave way at the site. He was installing a sewer line at the time. Co-workers were able to free him, but he was pronounced dead on arrival at a nearby hospital.
- 5/9/96, Sarasota FL, Injuries=1, Fatalities=, Accident type=Cave-in A worker was hospitalized with multiple injuries after being trapped from the waist down in a trench cave-in. Rescuers used a backhoe to slope the trench, then hand dug around the victim to free him.
- 5/15/96, Paramus NJ, Accident type=Cave-in

A city engineer has contacted OSHA after a trench caved in on a worker at a shopping mall. The worker, who was fixing a leaky water pipe, was not hurt, but the engineer said the job was being conducted unsafely. The workers were not wearing hard hats and the trench was not shored. The worker trapped by the cavein was not seriously injured.

5/20/96, Monrovia AL, Injuries=, Fatalities=1, Accident type=Cave-in

A worker buried up to his neck in a 12-foot-deep trench died at a nearby hospital after being flown from the site by a medivac helicopter. He was part of a crew that was installing drainage pipe. According to the state director of OSHA, any ditch deeper than five feet must be shored or sloped back. OSHA is investigating the accident. There was some dispute among witnesses and rescue officials about whether the trench caved in or the victim was trapped by loose dirt falling from a pile along the top of the trench, or whether a cave-in caused the loose dirt to fall into the trench. An assistant chief of the local fire department was quoted in the local news media as saying that trench cave-in accidents are rare.

5/24/96, Burnsville MN, Injuries=, Fatalities=1, Accident type=Cave-in A 25-foot-deep pit dug for a city drainage project caved in on two children playing in the hole. One was completely buried and died at the scene. The second was rescued by firefighters summoned by a 911 call. Rescuers narrowly escaped being trapped in a second cave-in. The excavation for the ongoing project had been fenced off and area parents had been warned to keep their children away from it. The two boys were not from the area.



- **5/27/96, Mercer Island WA**, Injuries=1, Fatalities=, Accident type=Cave-in A worker waterproofing the basement of a home was trapped by wet sticky clay that buried him up to the waist when the outside wall of the trench around the home's foundation caved in. If the cave-in had deposited another foot of dirt around the victim, he would have died, a fire official told the news media. Sate worker safety officials said the wall of the 8-foot-deep trench should have been shored. Fifty firefighters worked the four hours to stabilize the trench and dig the victim out. The victim's employer said the crew were within two hours of finishing the job and apparently did not want to take time to use shoring.
- **5/29/96, Hamilton ON**, Injuries=1, Fatalities=0, Accident type=Cave-in A 56-year-old homeowner trying to repair a water leak in his front yard was trapped for nearly two hours when the 10-foot-deep hole he had dug caved in. Neighbors were unsuccessful in freeing him, because sides of the hole kept caving in. Some 12 firefighters called to the scene worked 45 minutes to free him. He was hospitalized in satisfactory condition.
- **5/30/96, Glen Ellyn IL**, Injuries=2, Fatalities=, Accident type=Cave-in OSHA was notified by public officials after a trench caved in on two veteran workers, hospitalizing one with multiple fractures. The two, ages 60 and 56, were trapped for about 20 minutes before being rescued. A trench box was reportedly at the construction site, but had not been used.
- 6/1/96, Stratford CT, Injuries=, Fatalities=1, Accident type=Cave-in OSHA has proposed penalties totaling \$17,600 for a contractor whose employee was killed in a trench cave-in at a home under construction. The worker was in the trench around the foundation when the outside wall of the 10-foot deep excavation collapsed. At the time, he was removing dirt that had previously fallen into the hole from the excavation's unshored vertical wall. OSHA's report noted the lack of shoring and that the workers at the site had not been trained in the recognition and avoidance of hazards posed by excavation.
- **6/5/96, Edmonton AB**, Injuries=1, Fatalities=, Accident type=Cave-in "It was quite safe. He felt comfortable going in it. He's an experienced trencher," a contractor told news media when asked to comment on a trench cave-in that sent one of his workers to the hospital with broken ribs, fractured collarbone and collapsed lung. The contractor also claimed the trench did not have to be shored. The worker was in a 2.4-metre-deep trench that was being dug parallel to an existing gas line trench. Heavy rains were felt to be a factor in causing the dirt from the old trench to fall into the newly dug excavation. "It came in like a tidal wave," one witness said. The victim was buried 2 1/2 feet over his head, but coworkers were able to rescue him within a few minutes;
- **6/5/96, Spring Valley NY**, Injuries=2, Fatalities=, Accident type=Cave-in One worker suffered a possible spinal injury and the second had leg and shoulder injuries after a drainage trench they were digging at a golf course caved in on them. Because of the rough terrain at the golf course, the victims had to be carried about 250 feet to a hill top where a medivac helicopter could pick them up. The worker with the possible spinal injury was semi-conscious and complained of lack of feeling on one side below the waste.



6/8/96, Holiday FL, Injuries=, Fatalities=1, Accident type=Cave-in A worker trapped by sand up to his knees in a trench cave-in was crushed to death when 25 feet of concrete sidewalk dropped into the hole. He was installing water pipes beneath the sidewalk at an intersection at the time of the accident. Local officials notified OSHA as is standard practice in contruction-related accidents.

6/13/96, Knoxville TN , Accident type=Cave-in

A 41-year-old man was in stable condition at the University of Tennessee Medical Center with injuries suffered in a trench cave-in. His co-workers reportedly jumped into the trench to rescue him, and initially refused orders from emergency services officials to get out of the trench. There was concern about the possibility of another cave-in of the unshored trench. Rescue workers used plywood and air jacks to hold back the dirt while they effected the rescue. The victim appeared to have suffered a broken leg. OSHA and local authorities are investigating.

6/19/96, Millbury MA, Accident type=Cave-in

OSHA penalties totaling \$52,750 have been levied against a contractor working on a water main installation project. An OSHA compliance officer was driving by the construction site when he saw a worker enter an unshored 7-foot-deep trench. The officer also observed that workers were exposed to danger of being hit by moving parts of the backhoe being used to dig the trench, and that the window of the backhoe cab was cracked, distorting the operator's view. Closer inspection also revealed lack of fire extinguishers and first aid supplies at the site. Chains being used to lift and move the water pipe had not been labeled or inspected.

6/21/96, Cheyenne WY, Injuries=, Fatalities=1, Accident type=Cave-in A plumber digging a sewer trench for a new building died when the trench caved in on him. He was the only worker at the site and the accident was not discovered until someone later noticed his backhoe had been idling unattended for some time. Investigators were not sure why he had gotten off the backhoe and went down into the hole. His employer said he had been assigned to "dig an OSHA trench," but investigators felt that the wall that collapsed may have been straight up and down rather than sloped per OSHA regulations. The soil was Type C with gravel and very little clay. When found, the victim was crushed against the opposite wall of the trench. He had severe internal injuries, and a broken color bone had severed his jugular vein.

6/26/96, Platte SD, Injuries=0, Fatalities=1, Accident type=Cave-in

A 33-year-old construction worker died when a trench caved in on him at the Snake Creek Recreation Area. The victim and another worker were buried in the cave-in while installing a water line. Rescuers were able to save on worker, but the other was further down in the trench. He was pronounced dead at a nearby hospital.

6/27/96, Indianapolis IN, Injuries=0, Fatalities=1, Accident type=Cave-in The widow of a man killed in a trench cave-in has file a lawsuit against the contractor who had hired him to work on a sewer repair. The accident happened November 16, 1965. The suit contends that the contractor was negligent in failing to uphold safety standards and failing to inspect the work area.



- **6/27/96, Shinnston WI**, Injuries=2, Fatalities=, Accident type=Cave-in Two city workers were buried to their wastes in loose dirt that fell into a trench where they were working on a drainage project. Both were transported to the hospital where they were treated for minor leg injuries and release later the same day.
- **7/2/96, Kansas City MO**, Injuries=1, Fatalities=, Accident type=Cave-in It took emergency services personnel three hours to rescue a worker trapped eight feet down in a trench being dug by his father with a backhoe. The son was in the trench installing sewer pipes when the 6-foot-wide trench caved in. As diggers worked to free him in the 90-degree heat, emergency medical personnel put fans in the ditch and gave the victim fluids intravenously to keep him from losing consciousness. OSHA in investigating the accident.
- 7/9/96, Ridgefield WA, Injuries=1, Fatalities=, Accident type=Cave-in A man installing a sewer line was hospitalized in serious condition after being buried up to his chest in a trench cave-in. Injuries included broken ribs and a punctured lung. A portion of the lung had to be removed. The state Department of Labor is investigating the accident.
- 7/19/96, Warren PA, Injuries=0, Fatalities=2, Accident type=Cave-in OSHA is investigating the deaths of two men killed in a trench cave-in while installing a sewer line and manhole. The trench was approximately 12 feet deep. One body was recovered at the bottom of the trench and the second was found about three feet higher. Recovery effort took two hours in a steady drizzle as wet sticky clay stuck in the 5-gallon buckets used to remove the dirt. Firefighters said they saw no shoring in the trench, but the cave-in was so massive there was a possibility any shoring could have been buried. There was some evidence the trench had been "tiered."
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 7/23/96, Amesbury MA, Injuries=1, Fatahties=0, Accident type=Cave-in The city is ordering trench boxes and shoring for its public works department after a worker was trapped in a trench cave-in. We want to promote safety and learn from every experience like this," the city manager is reported as saying. The worker was slightly injured when dirt fell on him as he was trying to climb out of the trench.
- 7/26/96, Charleston WV, Injuries=0, Fatalities=1, Accident type=Cave-in A leading cancer specialist doing construction work as therapy for emotional stress died when he was completely buried in a trench cave-in. The 42-year-old doctor was installing a water line as part of a personal project when he died. Friends said he frequently did construction work to relieve stress associated with treating terminally ill cancer patients.

7/31/96, Bridgeport CT, Accident type=Cave-in

A man examining an open trench at a sewer construction site next door to his home was trapped when the trench caved in. He was standing at the edge of the trench when the cave-in occurred. He fell into the 10-foot-deep hole and was buried up to his waist by the dirt that fell in with him. He was not injured, but rescuers worked nearly an hour in pouring rain to extract him. News reports said the construction workers had warned the man about getting too close to the trench and were angry at him for falling in.



- 8/1/96, Washington County MN, Injuries=, Fatalities=1, Accident type=Cave-in A 46-year old worker died when a trench caved in on him at a construction site. The accident is being investigated by the Washington County sheriff and other entities.
- 8/7/96, St. Joseph MO, Injuries=0, Fatalities=1, Accident type=Cave-in A plumbing contractor died when a 20-foot-deep trench caved in on him. It took two hours of digging with the help of a backhoe to retrieve the body. The contractor was installing sewer lines to two new homes at the time of the accident. Witnesses said the backhoe operator who dug the trench, jumped in and desperately attempted to uncover the victim using his hands.
- **10/10/96, Cuyahoga Falls OH**, Injuries=, Fatalities=1, Accident type=Cave-in As some 50 rescuers worked with buckets and hand shovels to free him, a man buried up to his head talked with them and even joked a little about his predicament. However, after about four hours, the man suddenly quit talking, and died. Officials speculated he may have succumbed to internal injuries and bleeding. He was working in an unshored 15-foot-deep trench to install a sewer line when the accident happened.
- 10/13/96, Calgary AB, Injuries=, Fatalities=1, Accident type=Cave-in A man laying a sewer line at a campground died when a trench cave-in. He was completely buried for about ten minutes before a trench rescue unit could free him. Initial reports indicate the trench was not shored and the soil was saturated.
 10/23/96, Brookville OH, Injufies=, Fatalities=1, Accident type=Cave-in
- 10/23/96, Brookville OH, Injuries=, Fatalities=1, Accident type=Cave-in A plumber working on a new home died when a trench caved in on him. Officials said the accident occurred as the man was climbing out of the trench after hooking up a sewer line.
- 10/26/96, Liberal KS, Accident type=Cave-in

A man buried under four feet in sandy soil miraculously was alive when rescuers uncovered him after nearly 30 minutes. The man said he was afraid to exhale deeply while buried, because the soil might flow in around his chest. He took shallow breaths and managed to hang on. He was working in a 9-foot-deep trench installing sewer lines to a new home when the accident occurred.

- **10/30/96, Burlington KY**, Injuries=1, Fatalities=, Accident type=Cave-in Rescuers worked nearly five hours to free a man trapped when an 11-foot-deep trench caved in on him. The man worked for a plumbing contractor. During the rescue, he complained of numbress in his legs and was taken to the hospital after the incident.
- 11/7/96, Margate FL, Injuries=3, Fatalities=1, Accident type=Cave-in One man died and three were injured when the 16-foot-deep trench where they were working caved in. A boulder loosened by the cav e-in pinned the men and hampered rescue efforts. The workers were installing sewer lines at the time of the accident. Rescuers worked four hours to free two of the injured men who were buried up to their waists. The third injured man was rescued by a backhoe operator immediately after the cave-in. The operator said the crew was crossing under a cable duct where the cave-in occurred. This prevented them from using their trench box at that point, he said.



11/8/96, Margate FL, Injuries=2, Fatalities=1, Accident type=Cave-in

A trench cave-in loosened a boulder which rolled into a 10-foot-deep trench, killing one worker and seriously injuring two others. Investigators at the scene reported there was no shoring at the site. A backhoe operator told the investigators he had told the construction company owner the site was unsafe and had "started to walk off the job" several times because of that. The three victims were installing sewer pipe when the accident happened. An OSHA investigator later said that for \$30, the contractor could have rented a trench box and prevented the tragedy. The maximum possible penalty, \$448,000, was imposed by OSHA.

- 11/13/96, Philadelphia PA, Injuries=, Fatalities=2, Accident type=Cave-in A 42-year-old father and his 19-year-old son died together in a trench cave-in while working on a new home construction project. They were laying pipe in a 8foot-deep trench, which was not shored, according to police reports. The reports also indicated the ground was wet from recent rains.
- 11/13/96, West Chester PA, Injuries=, Fatalities=2, Accident type=Cave-in A father and a son both died in a trench cave-in while installing water lines at a new subdivision. The corner's report said the father died of brain injuries and the son died of asphyxia due to traumatic compression of the chest. The 8-foot-deep trench was not shored and the ground was muddy from recent rains, according to reports.
- 11/25/96, McLean VA, Injuries=, Fatalities=1, Accident type=Cave-in A backhoe operator died when an 11-foot-deep trench caved in on him as he was working on a room addition for a house. News reports said, "for unknown reasons, he left the backhoe and went down into the...trench he was digging." The Virginia Department of Occupational Safety and Health Administration is investigating the accident, along with local police.
- 12/19/96, CRYSTAL LAKE IL, Injuries=1, Fatalities=, Accident type=Cave-in A 20-year-old construction worker suffered a broken pelvis, ruptured spleen and nerve damage when a 15-foot-deep trench caved in on him, burying him up to his chest. Fellow workers had freed him by the time rescue workers arrived. Accounts did not indicate if the trench had been shored.
- 12/22/96, Mastic NY, Injuries=, Fatalities=1, Accident type=Cave-in One man died while another was uninjured when the walls of a 12-foot-deep cesspool hole collapsed as they were trying to wrestle a concrete riser ring into position. The two had been lowered into the hole in a backhoe bucket. Rescue workers were able to dig the victim out fairly quickly, but they could not revive him.
- 12/23/96, Wasco CA, Injuries=1, Fatalities=1, Accident type=Cave-in Emergency services workers toiled for seven hours to retrieve the body of a 62year-old man who was buried in a trench he was digging for a septic field. Attempts to reach the body were foiled as wet, sandy soil kept caving in despite attempts at temporary shoring. When the hole became eight feet wide, a backhoe was brought in to exhume the body. A second worker suffered minor injuries in the cave-in.



12/26/96, Gulfport MS, Injuries=, Fatalities=1, Accident type=Cave-in A city worker installing sewer lines died when an 8-foot-deep trench collapsed. Another worker in the trench managed to escape unharmed. A safety consultant hired by the city said workers had piled dirt too near the edge of the trench and the weight collapsed the walls.

1/18/97, Abilene TX, Injuries=1, Fatalities=, Accident type=Cave-in

At the site of a 17-foot-deep trench cave-in from which a trapped worker was miraculously saved, a fire official told the Abilene Reporter-News newspaper, "In the first place, he should have been crushed. In the second place he should have suffocated." However, a small cavern formed beneath the brim of his cowboy hat, and rescuers managed to get an air line down to him as they began the 4-hour task of digging him out. He later said he could hear workers praying as they dug down to him, and he did some praying himself. The worker was installing sewer pipe at the time of the accident. A trench shield was being used, but the victim had stepped out of it to measure the grade of the sewer pipe he was installing. From his hospital bed, he said he briefly considered writing a book about his experience but doubted that anyone would believe it.

- 1/21/97, Calvert KY, Injuries=2, Fatalities=, Accident type=Cave-in A narrow escape from death was experienced by two workers trapped in a trench cave-in as they installed sewer pipe. Co-workers were given credit for saving the two by emergency services officials at the scene. Apparently, there was an air pocket of some sort and a pipe was driven into the ground to ensure an air supply as the victims were dug out. One was freed after 30 minutes and the second was freed 15 minutes later. One was hospitalized in stable condition, and the other was treated and released.
- 1/28/97, Marysville WA, Injuries=1, Fatalities=, Accident type=Cave-in A trench box was crushed by a cave-in, and a man working inside of it suffered a broken back. Dirt apparently covered the top of the trench box and completely buried the victim except for a pocket of air beneath his hardhat. Co-workers uncovered in within minutes and, knowing he had a possible back injury, carefully drug him to a more stable area of the trench. A specially trained trench rescue unit shored the trench walls and removed the victim.
- 1/29/97, Streetsboro OH, Injuries=, Fatalities=1, Accident type=Cave-in The City Council voted to require a city permit for all trenching operations after a man died in an unshored trench. He was killed in October of 1996 in spite of a 4hour rescue effort that was hampered by successive cave-ins that threatened to trap rescuers. When they first arrived, the victim was alive and was given oxygen, but a second cave-in occurred which buried him. The trench was 11 feet deep and had not been shored. A lawsuit was filed against the city and the contractor who employed the man. The man's wife was seeking damages in excess of \$25,000. The contractor had also been fined \$48,000 by OSHA, but the amount was reduced to \$38,000 after he agreed to implement a safety program for employees and purchase a trench shield.



- 2/6/97, Elizabethtown KY, Injuries=, Fatalities=1, Accident type=Cave-in A series of additional cave-ins hampered efforts to remove the body a sewer worker trapped under tons of dirt when a trench caved in. The man's sister was working with him and saw the muddy wall of the 15-foot ditch cave in on him. She jumped into the ditch to try and save him, and had to be physically removed before she was trapped herself. Another worker used a backhoe to attempt to uncover the victim, and had moved a tremendous amount of dirt before rescuers arrived. The body was finally recovered after two hours of digging. The man was employed by an electrical contractor working in a new housing development.
- 2/12/97, Cleveland OH, Injuries=1, Fatalities=, Accident type=Cave-in A 34-year-old worker faces confinement to a wheelchair and life in a nursing home as he undergoes physical therapy for a fractured vertebrae. He suffered the injury when a trench caved in on him as he installed sewer pipe at a new home. He was buried face-down in the trench for 90 minutes before rescuers were able to free him. While in the hospital after the accident, he experienced numbness in his leg. Doctors performed tests and discovered the fractured vertebrae.
- 2/12/97, North Ridgeville OH, Injuries=1, Fatalities=, Accident type=Cave-in A trench cave-in that injured an worker triggered surprise inspections of other construction sites in the area by safety officials. The inspections were requested by the city engineer after a sewer construction worker suffered a broken back and other injuries when a 12-foot trench collapsed on him. He was buried up to his head in wet mud. Firefighters took nearly 90 minutes to rescue him. OSHA is investigating the accident.
- 2/13/97, South Bend IN, Injuries-, Fatalities=1, Accident type=Cave-in Rescue workers struggled through snow and ice-covered terrain in a strip mining area in a vain attempt to save a worker buried in the collapse of a 12-foot-deep trench. His co-workers were also unsuccessful in their attempts to save the man by digging him out with showers, a backhoe and their hands.
- 2/13/97, South Bend PA, Injuries=, Fatalities=1, Accident type=Cave-in A man trying to fix a gas pipe leak died when the walls of a 12-foot-deep trench caved in on him. The 35-year-old victim was dead when rescuers reached him. The county coroner said he died of asphyxiation.
- 2/17/97, Ridgeville OH, Injuries=1, Fatalities=, Accident type=Cave-in A worker spent two hours immobilized by cold wet clay from a trench cave-in as rescue workers tried frantically to free him. He was laying sewer pipe at the time of the cave-in, and was buried up to his neck with one arm free. With that arm, he began throwing rocks and screaming to get the attention of his co-workers some distance away. He was freed just as it became impossible for him to breath. He experienced numbness in his leg and was unable to walk. Doctors gave him a 50-50 chance of recovery.
- 2/21/97, Brownsville TX, Injuries=, Fatalities=1, Accident type=Cave-in The family of a worker killed in a pit cave-in is suing the shipyard that that contracted with his employer to dig a trench at the yard. The suit says neither the shipyard nor the contractor used safeguards that would have prevented his death. The 27-year-old worker was using a jackhammer in a 12-foot -deep pit when the unshored dirt walls caved in on him. An attorney for the family said that although



the dollar amount of the suit has not been specified, it will be "a significant number."

- 2/22/97, Winchester VA, Injuries=1, Fatalities=, Accident type=Cave-in A sewer worker was pinned to the side of a ditch when a large rock slid into the trench. He was hospitalized with multiple fractures of the leg, but was in otherwise good condition. The trench had been dug through a hill of loose shale and apparently not shored. A county rescue unit with special training in trench cave-ins used special portable shoring to stabilize the trench walls so the man could be dug out.
- 2/26/97, Lake Forest IL, Injuries=1, Fatalities=, Accident type=Cave-in A plumbing contractor faces \$72,000 in fines as a result of a trench cave-in that injured an employee. The employee was in the bottom of a 14-foot trench when it collapsed and buried him up to his chest. Rescuers from 30 fire departments worked several hours to free him. The fines were for violations of federal workplace violations, including failure to train employees to recognize hazards, piling soil and other materials too close to the edge of a trench, not making site inspections, and failure to provide sloping, shoring or other means of cave-in protection.
- 3/4/97, Lawrenceville GA, Injuries=2, Fatalities=, Accident type=Cave-in Penalties totaling \$98,700 were levied against a construction company after two of its employees suffered minor injuries in a trench cave-in. The penalties were for five violations, all classified as "serious" by OSHA and two that were classified as "willful." The willful violations were failure to have a competent person on site and failure to shore the trench walls. The serious violations were failure to have a ladder inside the trench, failure of employees to wear hard hats, use of a tractor not equipped with a backup alarm, and failure of employees directing traffic to wear warning vests.
- 3/5/97, Redding CA. Injuries=, Fatalities=1, Accident type=Cave-in A worker at an office building construction site died when some 500 pounds of dirt fell from the side of an unshored trench. The coroner's report said he died quickly without taking another breath. His employer said that other crew members told him they had used a backhoe to claw through what they thought was solid rock and felt the trench was safe. Firefighters train in confined space rescue removed the body.
- 3/11/97, Joppa MD, Injuries=1, Fatalities=, Accident type=Cave-in A county public works employee was air lifted to a nearby Shock Trauma Center after a trench caved in on him while he was working on a storm drain. Fellow workers tried to rescue him, but were unsuccessful. Rescue units from two counties arrived on the scene and and also had problems. The rescue was finally completed an hour after the cave-in by a special Trench Rescue Team from an adjoining county. The team used an air knife to blow dirt away from the victim, who suffered from a cracked pelvis. The trench was not shored, but the victims supervisor said the slides were sloped and caved in due to unusual circumstances.
- **3/19/97, Lawrenceville GA**, Injuries=2, Fatalities=, Accident type=Cave-in An employer of two workers trapped when an unshored trench caved in on them is facing nearly \$100,000 in OSHA penalties. The two were laying gas pipe for a



restaurant when the cave-in of the 8-foot-deep trench occurred. One man was able to free himself and the second was pulled from the trench by rescuers 45 minutes later. OSHA charged the contractor with two willful violations for not having a competent person on site and for allowing the workers in the trench without shoring. He was also cited for workers not wearing hard hats, use of a tractor not having an alarm, failure to have a ladder in the trench, and workers directing traffic without wearing warning vests.

- **4/9/97, Prescott AZ**, Injuries=1, Fatalities=, Accident type=Cave-in A worker was hospitalized after a large rock loosened by a trench cave-in smashed his ankle. He was laying pipe in a 6-foot-deep trench when the accident occurred.
- **4/11/97, Rock Hill NC**, Injuries=, Fatalities=1, Accident type=Cave-in A 28-year-old worker died when the walls of a 9-foot deep trench caved in on him. He was installing a sewer line at the time of the accident. An investigator from the coroner's office said if the trench had been shored, the accident would not have happened.
- **4/11/97, Rock Hill SC**, Injuries=, Fatalities=1, Accident type=Cave-in A construction company has been fined \$4,025 for safety violations involved in a fatal trench cave-in. The victim died under several tons of dirt when the walls of a 9-foot deep trench collapsed. He was installing a sewer line at the time of the accident. An investigator from the coroner's office said if the trench had been shored, the accident would not have happened. The state Labor and Licensing Department cited the company for not using a trench box to protect workers from cave-ins and failing to push mounds of dirt away from the sides of the trench. Also listed in the citation were failures to use hard hats and train workers in first aid.
- 4/15/97, Abilene TX, Injuries, Fatalities=1, Accident type=Cave-in
 - A 31-year-old father of three died in a trench cave in while laying conduit for fiber optic cable. He was working in a 4 1/2-foot trench when he sat down for some reason. At that moment, the shallow trench caved in and buried him. Fellow workers uncovered him in an hand digging effort that took 15 to 20 minutes. He was admitted to a nearby hospital in critical condition, where he died about 12-hours later.
- **4/18/97, Shreveport LA**, Injuries=2, Fatalities=, Accident type=Cave-in Two workers were trapped at the bottom of an 11-foot-deep trench when the walls partially caved in. It took nearly four hours for firemen to rescue one victim, who was buried up to his rib cage. He was hospitalized in good condition. The other victim, who had jumped into the trench to help his co-worker and was caught by a second cave-in, was freed after two hours. He was treated and released at a nearby hospital. The two were part of a 3-man crew installing a sewer line. Investigators at the scene said the trench had not been shored.
- **4/29/97, Cobb GA**, Injuries=1, Fatalities=, Accident type=Cave-in A sewer worker jumped up on the pipe he was installing as a trench caved in around him, an action that probably saved his life, according to a fire official. Firefighters found him buried up to his shoulders when they arrived on the scene.



It took about 30 minutes to free the victim, who was hospitalized in stable condition.

- **4/30/97, Pleasant Lake` MA**, Injuries=1, Fatalities=, Accident type=Cave-in A worker installing water mains suffered a possible broken ankle when trench walls collapsed trapping him knee-deep in dirt. A regional Technical Rescue team having special training in extricating people from confined spaces performed the rescue.
- **4/30/97, Conroe TX**, Injuries=, Fatalities=1, Accident type=Cave-in An 18-year-old high school student trying to earn money to help his family during his mother's terminal illness died when the 15-foot-deep trench caved in on him. Co-workers at the top of the trench should warnings when they say the walls start to collapse, and two people working near the victim managed to scramble to safety. The crew was laying drainage pipe at the time of the accident.
- 5/1/97, Ardmore DE, Injuries=, Fatalities=2, Accident type=Cave-in OSHA has levied penalties of \$145,000 against a construction company that employed two workers that were killed in a trench cave-in last fall. The agency issued one willful and one serious violation for failure to slope or shore the trench.
- 5/1/97, Margate FL, Injuries=2, Fatalities=1, Accident type=Cave-in A Florida contractor was fined \$448,000 by OSHA after a trench cave-in that killed one of his employees and seriously injured two others. This was the third highest penalty for a trenching accident ever levied by OSHA. The crew was laying water and sewer lines in a 10-foot-deep trench at the time of the accident. Investigators were told by several people at the site that they had warned the contractor of the dangerous conditions, but he failed to slope the walls or shore the trench. He told investigators that based on 30 years of experience, he thought the trench was safe. He also ignored smaller cave-ins at the site earlier in the day.
 5/15/97, St. Louis MO, Accident type=Cave-in
 - About 30 rescue workers worked for over four hours to rescue a worker trapped up to his chin when a trench wall collapsed. Most of the digging was done by hand and the dirt removed in small buckets. Other rescuers shored the trench as the work proceeded. The victim was reported in good condition and actually assisted with the digging after his arms were freed.
- 5/16/97, New Victoria NS, Injuries=, Fatalities=1, Accident type=Cave-in A worker on a sewer project was died beneath a wall of clay as the side of a 16foot-deep trench caved in. Firefighters dug for 15 minutes with their bare hands to remove the dirt from around the man. He was pronounced dead at a nearby hospital. The impact on the firefighters in this small town was particularly heavy. They had never encountered a fatal accident before. A witness said that there was a ladder going down into the trench, but the walls were not shored.
- **5/27/97, Roebuck SC**, Injuries=, Fatalities=1, Accident type=Cave-in A 20-year old worker was killed when a 10-foot-deep hole caved in on him. A backhoe operator noticed the trench wall starting to slide and shouted a warning. The victim turned to run and it initially appeared he would escape, but he tripped and fell. Rescue workers found him an hour later buried face down under tons of wet, soggy clay. The two workers were exposing a drain pipe with the backhoe.



The victim had entered the hole to inspect the pipe. The county coroner said that the trench had not been shored.

- 6/4/97, Urbana IL, Injuries=1, Fatalities=, Accident type=Cave-in
 - A man working to shore up a trench wall was struck and pinned by a 5-foot-thick chunk of hardened clay that fell into the trench. The trench was being used for installing concrete storm drainage tile. A concrete wall had been build to shore up one side. Further work was being done to shore the trench when the accident occurred. Rescuers finished shoring the trench before removing the clay chunk. As they worked to accomplish that, a doctor entered the hole and monitored the trapped man's vital signs. According to reports, he remained conscious and talked with rescuers as they worked. His injuries were apparently not serious.
- **6/4/97, Fort Wayne IN**, Injuries=1, Fatalities=, Accident type=Cave-in Two men working on a sewer repair job were trapped when a trench wall cave-in on them. One managed to free himself and was able to remove dirt from around his co-worker's head so he could breath. Firefighters completed the rescue and neither man was seriously injured. Photos of the incident indicate the trench was not shored.
- 6/10/97, Sapulpa OK, Injuries=1, Fatalities=, Accident type=Cave-in A worker was hospitalized with leg and back injuries after a 15-foot-deep trench collapsed and buried him up to his chest. Firefighters labored for 45 minutes to free him. Coincidentally several of them had just completed trench rescue training at Oklahoma State University. They questioned whether the trench had been adequately shored to protect workers. The victim was working on a sewer renovation project at the time of the accident.
- 6/11/97, Mobile AL, Injuries=1, Fatalities=, Accident type=Cave-in A full complement of rescue workers were able to successfully remove a worker trapped up to his waist in the bottom of a partially collapsed trench. The man was working on a storm drain installation project at the time of the accident.
- **6/14/97, Middletown NY**, Injuries=, Fatalities=2, Accident type=Cave-in Felony indictments have resulted from an accident where two men drowned while trapped in the bottom of a trench by a cave-in. The cave-in broke a sprinkler pipe, which flooded the trench before the men could be rescued. A construction company and its subcontractor, and the owner of one of the firms have been indicted in Orange County Court on felony charges of second-degree manslaughter and criminally negligent homicide. Each was also charged with two misdemeanor counts of second-degree reckless endangerment. OSHA has already imposed fines on the two companies for failing to properly shore the trench. A sewer installation was underway at the time of the accident.
- 6/16/97, Crossfield AB Canada , Injuries=, Fatalities=1, Accident type=Cave-in A plumbing contractor was fatally injured when a sewer trench caved in on him, burying him to his shoulders. He was airlifted to a hospital where he underwent emergency surgery for internal injuries. He died in intensive care about five hours after the accident.
- 6/17/97, Beaver PA, Injuries=1, Fatalities=, Accident type=Cave-in A worker repairing a sewer line suffered a gash on his head and a sprained shoulder when the trench were he was working caved in on him. The trench was



reportedly unshored and OSHA is investigating. The safety officer for the company that employed the worker said that shoring was on order and he did not know why the worker was in the trench before the shoring arrived.

6/17/97, Pleasant Grove UT , Accident type=Cave-in

A man who said he'd been buried some 15 times survived another trench cave-in with the aid of his co-workers and a fire rescue team. The 39-year-old man was standing on the edge of a trench preparing to lay sewer pipe when the walls caved in under his feet, dropping him into the 17-foot-deep trench. He was completely buried and unconscious when a co-worker uncovered his head. Firefighters shored the sides of the hole and were able to finish extricating the victim in an effort that took about an hour. The man was treated by paramedics at the scene, but was not hospitalized. "I'm fine. I've been buried worse that that," he told the Provo UT Daily Herald newspaper.

6/18/97, Solon IA , Injuries=, Fatalities=1, Accident type=Cave-in

Deputies responding to a report of a construction accident in a housing development arrived at the scene to find a backhoe with the motor idling, but no operator. They began a search and eventually found him buried in the bottom of an 8-foot-deep trench. At the time of the cave-in, he was working alone, installing a sewer line to a house under construction. The medical examiner pronounced him dead at the scene.

6/18/97, Kalamazoo MI, Injuries=1, Fatalities=, Accident type=Cave-in

A worker injured in a trench cave-in was hospitalized in fair condition after a chunk of clay fell from the trench wall and buried him up to his waist. Co-workers quickly shoveled the dirt away from the victim and freed him within minutes. An equipment operator at the scene described the cave-in as "a freak accident." 6/19/97, Amherst OH, Injuries=. Fatalities=1, Accident type=Cave-in

A worker laying sewer pipe in a 12-foot-deep trench died when the walls caved in on him. Rescue officials estimated that four tons of dirt fell on top of the 30-yearold man. Co-workers used their hands to quickly uncover his head. A doctor arrived on the scene and began administering to the victim as rescuers finished removing dirt from around him. However, he could not be revived when freed from the trench 45 minutes later. A trench box was reportedly being used on the job, but the victim was working outside of it when the walls collapsed.

6/21/97, Yreka CA, Injuries=1, Fatalities=, Accident type=Cave-in A contractor threatened a newspaper reporter as he took photos of a caved-in trench that had injured a worker. The photographer said the worker was in obviously in pain either from the cave-in or the extrication efforts. Witnesses said the trench was unshored, but the contractor filled it in immediately after the worker was rescued. The newspaper still had the photos, however. Cal OSHA is investigating the accident.

6/23/97, Sayreville NJ, Injuries=, Fatalities=1, Accident type=Cave-in A son saw his father die as the younger man vainly tried to dig away the dirt that buried the victim up to his chest. The two were working in a 6-foot-deep trench for a house they were building when the trench walls collapsed. Police reports said the father was still alive and talking when police arrived minutes after the cave-in. A fire rescue team tried to give the man oxygen, but he became



increasingly disoriented and kept pulling the mask away from his face. He died before they could extricate him.

10/8/97, Lake Isabella CA, Injuries=, Fatalities=1, Accident type=Cave-in A a 71-year-old man watching excavation activity near his home fell unnoticed into a deep trench just as a truck was dumping a load of fill into it. He was completely buried and his plight was not discovered until over an hour later when his wife reported him missing. He suffered from asthma and was connected to a portable oxygen tank, so authorities knew he could not have gone far. By that time the trench had been completely filled in, and authorities ordered it redug. The body was found by a search and rescue team about two hours later.

11/13/97, Salina KS, Accident type=Cave-in

Two plumbers were trapped when the 6-foot-deep trench in which they are installing plastic pipe collapsed. One was completely buried and the second was buried up to his chin. The buried man survived in an air pocket created by the second man's body. One of the survivors, a 15-year veteran of trench work, said that he was surprised the trench caved in, because he thought they were digging in virgin ground.

11/14/97, Hyrum UT, Injuries=, Fatalities=1, Accident type=Cave-in A farmer laying water pipe from a spring on his farm was killed when the 12foot-deep trench caved in on him. His son was operating a backhoe at the scene and witnessed the accident. An investigator at the scene said that the walls of the trench appeared to be stable, but obviously that appearance was deceiving.

- 12/9/97, Oswego NY, Injuries -, Fatalities=1, Accident type=Cave-in A worker installing a water line was killed when a large metal plate slid off the side of the 9-foot trench and struck him. His employer was later fined \$2,100 by OSHA for not having approved shoring at the site. OSHA inspectors also cited the company for a stairway to a storage trailer that did not have hand rails on both sides; a problem with a generator; and problems with a platform and trailer door. These other violations did not incur any fines.
- 12/24/97, Wasce CA, Injuries=, Fatalities=1, Accident type=Cave-in A trench dug in sandy soil that had been saturated by rain caved in on a plumbing contractor and killed him. A second worker in the trench managed to escape unharmed, but the victim was complete buried in the 6-foot-deep trench.
- **4/2/98, Knoxville TN**, Injuries=1, Fatalities=, Accident type=Cave-in A trench cave-in victim went from the hospital to the jail when his name came to the attention of local law enforcement officials. Some 100 rescuers had worked for five hours to rescue the construction worker. When they finally freed him, he was hospitalized in stable condition. He was named in news coverage of the incident, which prompted his arrest for outstanding warrants that included violation of probation. The man's injuries were minor. He was trapped up to his chest when the trench caved in while he was laying 24-inch pipe at a wastewater treatment plant.

