UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

Secretary of Labor, Complainant v. Reynolds, Inc., Respondent.	OSHRC Docket No. **05-0023**

Appearances:

Michelle M. DeBaltzo, Esq., U. S. Department of Labor, Office of the Solicitor, Cleveland, Ohio.
For Complainant

Cory V. Crognale, Esq., Schottenstein, Zox, and Dunn, Columbus, Ohio.
For Respondent

Before: Administrative Law Judge Ken S. Welsch

DECISION AND ORDER

Reynolds, Inc. (Reynolds), a construction company, contracted with the City of Cincinnati to install a new water transmission main in Mason, Ohio. During the early morning hours on June 10, 2004, an employee was fatally struck by the bucket from an excavator (trackhoe) which had unexpectedly detached and rolled into the excavation. As a result of an inspection by the Occupational Safety and Health Administration (OSHA), Reynolds received citations for alleged serious, willful, and repeat violations on December 1, 2004. Reynolds timely contested the citations.

The serious citation alleges Reynolds violated § 5(a)(1) of the Occupational Safety and Health Act (Act) (Item 1) for failing to properly connect the bucket to the hydraulic quick coupler attachment on the excavator; 29 C.F.R. § 1926.20(b)(1) (Item 2) for failing to include in its accident prevention program rules on working with quick couplers and staying clear of excavator attachments or loads; and 29 C.F.R. § 1926.20(b)(2) (Item 3) for failing to regularly inspect the connection between the excavator's bucket and the hydraulic quick coupler. The serious citation proposes total penalties of $15,000.

The willful citation alleges Reynolds violated 29 C.F.R. § 1926.652(a)(1) for failing to provide cave-in protection to employees working in an excavation 5 feet or greater in depth. The willful citation proposes a penalty of $70,000.

The repeat citation alleges Reynolds violated 29 C.F.R. § 1926.21(b)(2) for failing to train employees in the hazards associated with cave-ins and the use of quick coupler devices. The repeat citation proposes a penalty of $25,000.

The hearing was held on August 16 - 18, 2005 in Cincinnati, Ohio. The parties stipulated jurisdiction and coverage (Tr. 4). The parties filed post hearing briefs.

Reynolds denies the alleged violations. Reynolds argues it was not aware the excavator bucket could unexpectedly release from the quick coupler device. Also, Reynolds maintains the excavation did not require shoring or sloping because it was less than 5 feet in depth.[1]

The alleged violations are vacated and affirmed as more fully discussed in this decision.

The Accident

Reynolds' principal business involves site and utility excavation work throughout the Midwest and South. Its main office is in Orleans, Indiana. Reynolds employs more than 800 employees and is considered the 37th largest construction company in the United States (Tr. 593, 690).

In November 2003, Reynolds began installing a new underground water transmission main for the Greater Cincinnati Water Works along Mason Montgomery Road, in Mason, Ohio (Exh. R-A; Tr. 183, 637). The project involved laying approximately 15,000 feet of 30-inch inside diameter concrete pipe (Tr. 155, 184). Each section of pipe, approximately 20 feet long, needed to be placed at a precise depth (Exhs. C-12, C-13; Tr. 153, 652). The project was completed by the end of July, 2004 (Tr. 637). On June 10, 2004, the date of the accident, less than 600 feet of pipe remained to be laid (Tr. 185, 659).

To perform the project, Reynolds utilized a crew of approximately three equipment operators, five laborers and eight dump truck drivers (Tr. 638). The crew was supervised by project foreman

[1] Although Reynolds asserted unpreventable employee misconduct, greater hazard, and infeasibility defenses in its answer, the alleged defenses are deemed abandoned for failure to brief the issues in its post hearing brief. See *Georgia-Pacific Corp*., 15 BNA OSHC 1127, 1130 (No. 89-2713, 1991).

Ronald Flick and project superintendent Robert Vinson (Tr. 463, 636). General superintendent, Wayman Goldman, was on site approximately twice a week (Tr. 529, 713).

The equipment for the project included two excavators (Caterpillar 325BL and a larger Caterpillar 345), one backhoe, and two loaders (Tr. 638-639). The Caterpillar 325BL track excavator, serial number 2JR02378, was purchased in May 1999 (Exhs. C-3, R-B; Tr. 90). A Caterpillar "Pin Grabber Plus" hydraulic quick coupler was installed on the excavator in February, 2000 (Exh. R-F; Tr. 597). The purpose of the quick coupler is to allow the operator to change work tools such as different size buckets without leaving the excavator's cab (Exh. C-10, p. 22; Tr. 107, 330).

On June 9, 2004, Reynolds' crew started working at 10:30 p.m., under the Interstate 71 overpass and was intending to work throughout the night adjacent to Mason Montgomery Road (Tr. 129, 671). Twelve employees were present including supervisors Goldman, Vinson, and Flick (Tr. 487, 527). Because of the height of the overpass, the smaller excavator, Caterpillar 325BL was used. The excavator was operated by Robbie Bumgardner (Exh. C-24; Tr. 16, 138, 661, 673). For additional clearance under the overpass, Reynolds claims approximately twelve inches of top soil was removed (Tr. 656, 672-673). The crew laid approximately eight sections of pipe by 2:30 a.m. The site plans for the area required the flow line to be at a depth of 5.87 feet (Exh. C-13; Tr. 159, 160).

At approximately 2:30 a.m., on June 10, 2004, after placing a concrete pipe in the excavation, operator Bumgardner moved the stick with the quick coupler attachment approximately fifteen feet to reattach the bucket which was sitting on the ground. He lowered the quick coupler onto the bucket. Once he believed the bucket was attached, Bumgardner lifted the stick slightly above the ground, shook the bucket several times, and then moved it towards the excavation. When the bucket was at the side of the excavation, it unexpectedly detached from the quick coupler and rolled into the excavation (Exhs. C-2, C-4, C-24; Tr. 19-21, 323).

Two Reynolds' employees were in the excavation (Tr. 471, 640). Laborer Justine Leicht was inside the 30-inch concrete pipe grouting the joint between two pipes. The other employee, laborer and pipelayer Bill Shearn was standing outside the pipe at the opening attempting to place a diaper

on the end to hold grout. When the bucket rolled into the excavation, Shearn was struck by the bucket and later died at the site (Tr. 124-126, 142).

OSHA Compliance Safety and Health Officer James Denton arrived on site at 9:00 a.m. (Tr. 421-422). Denton held an opening conference with superintendent Vinson and interviewed the employees including officials from the Police Department and the Ohio Department of Transportation. Denton measured the excavation and reviewed Reynolds' safety policies and procedures involving the use of the quick coupler. The excavator, the hydraulic quick coupler, and the bucket were inspected by a representative of Caterpillar.

The parties agree there were no mechanical problems with the equipment which caused the bucket to unexpectedly detach (Tr. 77-78, 107, 548, 561). Also, the coupler's control switch in the cab functioned properly including the alarm which buzzes when in the unlocked position (Exh. R-F, repair sheet -June 10, 2004; Tr. 112). A positive lock spring was missing which protected the coupler if there was an hydraulic failure (Tr. 567). There is no dispute the missing spring did not contribute to unexpected detachment of the bucket (Exh. R-EE, p. 3; Tr. 78, 107, 353, 356, 565).

Since the accident, Reynolds has removed their Caterpillar quick couplers from service and traded for new quick couplers (Exh. R-H; Tr. 584-585, 594). Reynolds also purchased six quick couplers from another manufacturer which have redundant safety features consisting of steel lock pins that are manually inserted to ensure proper connection with the work tool (Exhs. R-G, R-H; Tr. 586-587). In addition to training employees on the new quick couplers, Reynolds disciplined the foreman and the two superintendents at the job. The project superintendent received a two week suspension and was required to travel to various job sites to discuss the circumstances surrounding the accident (Tr. 697-698, 714).

As a result of OSHA's inspection, the citations alleging serious, willful, and repeat violations involving the quick coupler and the lack of shoring in the excavation were issued.

Discussion

Citation No. 1, Item 1 - Alleged Serious Violation of §5(a)(1) of the Act

The Secretary alleges a serious violation § 5(a)(1) of the Act, also known as the general duty clause as a result of the unexpected detachment of the bucket from the quick coupler.[2] Section 5(a)(1) provides:

> Each employer -
>
> (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.

A citation alleging a violation of § 5(a)(1) is not appropriate when a specific standard applies to the facts. In this case, no specific OSHA standard addresses the hazards associated with the use of the hydraulic quick coupler on excavators or the unexpected detachment of a bucket (Tr. 515-516).

In order to prove a § 5(a)(1) violation, the Secretary's burden of proof under *Waldon Healthcare Ctr.*, 16 BNA OSHC 1052, 1058 (No. 89-2804, 1993), is to show:

> (1) there was an activity or condition in the employer's workplace that constituted a hazard to employees, (2) either the cited employer or its industry recognized that the condition or activity was hazardous, (3) the hazard was causing or likely to cause death or serious physical harm, and (4) there were feasible means to eliminate the hazard or materially reduce it.

In this case, operator Bumgardner has changed work tools by use of the quick coupler "thousands of times" without incident prior to the accident (Tr. 323, 383, 411). He had only operated the Caterpillar 325BL twice. His normal excavator was the larger Caterpillar 345 (Exh. C-24; Tr. 409-410, 436). On the night of the accident, he changed work tools at least 5 times before the accident (Tr. 324, 383).

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[2] In two previous cases, citations for the unexpected detachment of buckets by quick couplers were vacated in two unreviewed judges' decisions. *Performance Site Management*, 19 BNA OSHC 2054 (No. 01-0956, 2002) (ALJ Schoenfeld vacated a willful §5(a)(1) violation for failing to protect employees working under an excavator bucket because the employers' existing work rule which prohibited working under a load was a similar protocol as proposed by the Secretary); *Performance Site Management*, 19 BNA OSHC 1442 (No. 00-0535, 2001)(ALJ Spies vacated serious violations of §1926.20(b)(2) and §1926.21(b)(2) for failing to train and inspect the connections between the quick coupler and bucket because there was no showing the employer's test differed in a significant way from the manufacturer's instruction). These decisions provide little assistance on the issues in this case.

Regardless of the excavator model, the quick couplers operate in the same way. The Caterpillar quick coupler is a hydraulic pin grabber (Exh. C-10). The coupler was installed on the Caterpillar 325BL and the operation decal placed in the cab window on February 4, 2000 (Exh. R-F, p. 7).

According to Caterpillar, the quick coupler reduces the time and labor involved in changing work tools by enabling the operator to switch work tools repeatedly without leaving the cab and without assistance. To attach a work tool, the operator uses the control switch located in the cab. The switch has two positions - "lock" and "unlock." It emits an audible alarm when the switch is in the "unlock" position.

To attach a work tool such as the bucket, the operator positions the quick coupler directly over the bucket. He then lowers the quick coupler's two hooks onto two horizontal pins on the bucket. Upon seating the coupler's hooks, the operator moves the control switch from the "unlock" position to the "lock" position. He waits a few seconds to enable the hydraulic powered coupler hooks to close around the bucket pins. At that point, the coupling operation is complete (Exh. C-10; Tr. 560-561).

1. The Hazard

As the first element in establishing a §5 (a)(1) violation, a "hazard" is defined in terms of conditions or practices deemed unsafe over which an employer can reasonably be expected to exercise control. *Morrison-Knudson Co./Yonkers Contracting Co., A Joint Venture,* 16 BNA OSHC 1105, 1121-1122 (No. 88-572, 1993).

The hazard of an unexpected detachment of a work tool from a quick coupler is established if the coupler device has no redundant safety feature or the manufacturer's coupling instructions are not strictly followed. If the work tool is not properly secured by the quick coupler, the work tool may unexpectedly detach causing employee injury. The employee in this case was fatally injured by the unexpected release of the bucket. In 1999, two employees of another employer in Ohio died in two separate incidents when excavator buckets unexpectedly detached from quick couplers (Tr. 252-253). According to OSHA, there has been 6 accidents involving quick coupler devices in Ohio (Exh. C-19; Tr. 252). Nationwide, there has been 17 instances of detached work tools from quick couplers resulting in approximately 10 fatalities since 1998 (Exh. C-23; Tr. 303).

2. The Hazard was Recognized

A hazard is deemed "recognized" when the potential danger of a condition or activity is either actually known to the particular employer or generally known in the industry. *Pepperidge Farm, Inc.*, 17 BNA OSHC 1993, 2003 (No. 89-0265, 1997).

Risk manager William Kessler testified he was unaware of any hazard associated with the quick coupler (Tr. 696). He did not hear any discussion regarding problems quick couplers during either of his OSHA training courses (Tr. 695-696). Operator Bumgardner, with 22 years of experience, stated he had executed thousands of operations with quick couplers before this accident without a bucket unexpectedly detaching. He also stated he "knew they had or would fall off prior to [the] accident" (Exh. C-24).

Reynolds has approximately 60 excavators and more than 20 quick couplers. The majority of quick couplers were made by Caterpillar (Tr. 593-594). During the Mason Montgomery project, work tools were changed 40 to 50 times a day by the quick couplers on the two excavators (Tr. 650-651).

Despite Kessler's testimony and the operator's experience, the record establishes the hazard of an unexpected release of a work tool from a quick coupler should have been recognized by Reynolds and was recognized by Reynolds' construction industry. Equipment manager Joe Reynolds testified he saw a bucket fall off from a quick coupler at the Caterpillar training center but he could not remember if it involved an excavator (Tr. 621-622). Project superintendent Vinson who has operated excavators with quick couplers, testified he saw a bucket fall off a quick coupler approximately eight years ago while employed with Reynolds (Exh. C-25; Tr. 452, 646, 649). Also, the statement by operator Bumgardner shows he was aware of the potential hazard although he had not personally experienced the problem prior to this accident (Exh. C-24).

Also, the information from Caterpillar informed Reynolds of the potential hazard. Caterpillar's "Operation and Maintenance Manual" for the excavator as well as its "Operation and Maintenance Manual" for the quick coupler alerted customers to the potential hazard from an inadequate connection between the work tool and the coupler (Tr. 461). Both manuals specifically

advised that "serious injury or death may result from an improperly engaged coupler" (Exhs. C-9, p. 13, C-10, p. 24).[3]

In addition to Reynolds' awareness, the excavation industry in Ohio was aware of the potential for an unexpected detachment of work tools from quick couplers. Cathy Blackford, executive director of the Builders Exchange of Central Ohio, a trade association with 11,000 members in the commercial construction industry, testified the Exchange became aware of the problem after the two fatalities in 1999 (Exhs C-14, C-15, C-17; Tr. 188-190, 201). To address the potential problem, the Exchange conducted a seminar in 2001 on the problems with quick couplers for the construction industry.

Senior vice president William B. Burgett, of Kokosing Construction, a large construction company in Ohio with 1,500 employees, first became aware of the problem in the early 1990's when a bucket unexpectedly fell off one of its excavators. After learning of the death of the two employees in 2000 by another employer in Ohio, Kokosing modified their couplers to require the manual insertion of a pin as opposed to relying on the visual check by the operator (Tr. 213, 215-216, 218, 220).

Industry and government publications, to which Reynolds would have access, have also identified the potential hazard. An article in *Construction Equipment* in July 2001 discussed how "quick couplers make bucket changes fast and simple but rushing through the process can be fatal." After noting several fatalities involving pin grabber quick couplers, the article states accidents are "easy to prevent," and "operators should read the manual and receive thorough training" before using a quick coupler. The article recommends the operator to check the "security of the connection" prior to commencing work with a work tool (Exh. C-20, p. 2-3).

In November 2003, a NIOSH publication identified the unexpected detachments of buckets as one of the two common causes of injury associated with excavators and backhoe loaders during 1992- 2000 (Exh. C-21). In August, 2004 and 2005, the U.S. Department of Labor issued Safety and

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[3] Reynolds claims it did not possess Caterpillar's manual for quick couplers until after the accident on June 10, 2004 (Reynolds Brief, p. 23; Tr. 416, 442, 699-700). The court believes it improbable that Caterpillar did not furnish the manual to Reynolds when the coupler was purchased in 2000. It is also noted that Reynolds possessed 20 quick coupler; the majority made by Caterpillar. At least one of those quick couplers came with a manual.

Health Information Bulletins describing the hazards of unintended release of buckets from quick couplers on hydraulic excavators (Exhs. C-22, C-23). The bulletins were published on OSHA's website and stress the importance of compliance with the manufacturer's manuals (Tr. 297).

3. The Hazard Is Likely to Cause Death or Serious Injury

There is no dispute the unexpected detachment of a bucket which weighs in excess of 1,500 pounds can cause death or serious injury as in this case (Exh. C-1, p. 5). Caterpillar's "Operations and Maintenance Manual" for the excavator states that if the quick coupler is not properly engaged, serious injury or death may result (Exh. C-9, p. 13; Tr. 334-335).

4. Feasibility of Means to Eliminate or Reduce the Hazard

As the final element in establishing a § 5(a)(1) violation, the Secretary must show that the proposed abatement will "eliminate or materially reduce the hazard." *Cardinal Operating Company*, 11 BNA OSHC 1675 (No. 80-1500, 1983).

To eliminate or reduce the hazard, the Secretary proposes the installation of a fail-safe mechanical locking device or backup feature when using quick couplers or requiring operators to check and verify the coupler's connection in accordance with the manufacturer's specifications (Tr.217-218, 460).

As stated, the purpose of the quick coupler designed by Caterpillar is to allow the operator to change work tools without leaving the cab. The fail-safe recommendation by the Secretary includes manually inserting a pin. Such proposal is contrary to the manufacturer's purpose and design of the quick coupler.

With regard to following the manufacturer's specifications, Caterpillar's "Operation and Maintenance Manual" for the quick coupler identifies ten steps for the operator to follow in connecting a bucket to the quick coupler (Exh. C-10, p. 24-25). Preceding these steps is the following manufacturer's warning:

> Inspect the coupler engagement before operating the machine. Serious injury or death may result from improperly engaged coupler.

The manual then identifies the ten steps for the operator to follow in connecting the work tool. Of the ten steps, only steps 8, 9, and 10 discuss the ways to ensure a proper connection (Exh. C-10, p. 25; Tr. 335). These steps provide:

> 8. Retract the bucket cylinder. Make sure that the pins are locked. Shake the tool.
> 9. Visually check in order to ensure that the work tool is properly locked.
> 10. Verify that the quick coupler and the work tool are locked together (a) by placing the work tool on the ground; (b) applying pressure to the work tool against the ground; and (c) dragging the work tool backward.

According to Reynolds' licensed professional engineer Lee Horton, the overall design of the coupler makes it difficult for the operator to visibly check that the coupler is locked properly from the cab. There are no safety indicators in the cab to tell the operator whether the coupler is properly locked (Exh. R-EE, p. 4). Horton described four situations where the pin connection may appear from the cab completely encircled when it is not (Exhs. R-CC, R-DD; Tr. 341- 348). He concluded that if the operator had followed the manufacturer's procedures, particularly the one involving dragging the bucket on the ground, identified in step 10, the bucket would not have fallen off (Exhs. R-EE, p. 6, C-10, p. 25; Tr. 402, 406). He considered this aspect of the test, along with a visual inspection from the cab, as important tests in verifying the connection between the bucket and the quick coupler (Tr. 381-382).

The only way for an operator in the cab to check visually that the coupler is locked properly is to curl-in the work tool. The operator needs to roll the bucket completely around, lift the stick up all the way, and pull the stick in so the operator can look underneath to see that the back pin is completely encircled.

Operator Bumgardner explained the steps he typically followed to verify the connection. He aligns the coupler over the bucket and then holds the control switch in the lock position long enough to allow the coupler to clamp down on the bucket pines. Next, he curls the bucket and retracts the excavator stick in order to check the bucket connection. He then places the bucket on the ground and applies pressure to the bucket against the ground. Afterwards, he shakes the bucket in and out. If the bucket remains in place, he considers it ready for digging operations (Exh. C-4).

According to Bumgardner on the night of the accident, he did not drag the bucket because of the Ohio Department of Transportation's concern for scaring the pavement. Also, he did not

perform the curl-in visual check because of his concern for the height of the overpass.[4] Instead, he only shook the bucket in and out believing this would tell him if the connection was secure (Exhs. C-2, C-4, C-24: Tr. 39-40, 379, 383, 437-438).

Despite the feasibility of abatement, there is no evidence Reynolds should have known Bumgardner did not curl-in the bucket for a visual check at the time of the accident. Project superintendent Vinson testified he saw Bumgardner curling in the bucket several times during the evening of June 9 (Tr. 673). Although he had not received training in the operation of the quick coupler, Bumgardner, with 22 years of experience, used the quick coupler to change work tools thousands of times prior to June 9, 2004, without incident. He knew the correct procedure to visually confirm the proper locking of the coupler. Bumgardner exercised his judgment as an experienced operator when he performed only one out of the three tests identified by the manufacturer (Exhs. C-4, C-24; Tr. 437-438). He believed it was properly locked when he shook the bucket. Kenneth Webb, a Caterpillar representative, agrees shaking the tool verifies whether the pins are locked down by the quick coupler (Tr. 103-104).

Also, the manufacturer's coupler manual provides inadequate instructions as to the means for ensuring a proper coupler connection.[5] The operation instructions fail to emphasize which steps are critical in the connection process or stress the need to perform each step. Also, other than stating the operator was to perform a visual check, the manufacturer's instructions do not describe how to perform such check (Exh. C-10, p. 25). Horton was able to identify four different connections which appeared secure from the cab but were not properly engaged (Exh. R-EE; Tr. 338-347).

With regard to the decal in the cab, the record is unclear as to which illustration decal Reynolds posted in the cab of the excavator at issue. The record shows a decal was placed in the cab in 2000 when the coupler was installed. The parties agree either the illustration decal depicted on page 6 or on page 23 of Exhibit C-10 was in the cab (Tr. 617). CO Denton did not recall seeing a

[4] Project Superintendent Vinson testified the bridge clearance was not a problem in the operation of the excavator (Tr. 673).

[5] It is noted Caterpillar revised its coupler manual in February 2005 by specifically instructing to inspect the block bar and spring for proper operation and augmenting the instruction decal by additional illustrations showing the placement of the bucket attachment on the ground and dragging it backwards to ensure the coupler is properly locked (Exh. R-GG).

particular decal (Tr. 445). Webb, Caterpillar's representative, observed a decal in the cab but he could not remember whether it was the same decal as on page 6 of Exhibit C-10 (Tr. 96).

It is noted both decals start with a depiction of a book, informing the customer to read the manual. However, neither depiction of the decal as shown on page 6 or page 20 show that the depicted steps are those required, exclusively or otherwise, to verify or ensure a proper connection between a quick coupler and work tool. Rather as the Secretary notes, beneath the relevant illustration on page 6, the manual directs a user to "perform the steps that are illustrated on the message in order to lock the coupler." The decal shown on page 23 does not clearly show the shaking step, the curl-in step, or the application of pressure step. The decal shown on page 6 is a little more clear (Exh. C-10). The Secretary agrees the language in the quick coupler manual suggests that these illustration decals apply to attaching a work tool, not necessarily to verifying such attachment (Secretary Brief, p. 13).

A violation of §5(a)(1) is not established.

Citation No. 1, Item 2 - Alleged Serious Violation of § 1926.20(b)(1)

The citation alleges Reynolds' accident prevention program failed to contain rules requiring employees to stay clear of swinging attachments and on working with quick couplers. Section 1926.20(b)(1)[6] provides:

> It shall be the responsibility of the employer to initiate and maintain such programs as may be necessary to comply with this part.

In the Sixth Circuit, where this case arises, the test in interpreting a general standard such as § 1926.20(b)(1) is whether a reasonable person, given a particular set of circumstances, can determine what is required or whether an employer was actually aware of the hazards and the applicable abatement measures. *W.G. Fairfield Co. v OSHRC,* 285 F.3d 499, 505 (6th Cir. 2002), citing, *R & R Builders Inc.*, 15 BNA OSHC 1383, 1387 (No. 88-282, 1991).

[6] Unlike a § 5(a)(1) violation, in order to establish a violation of an occupational safety or health standard such as § 1926.20(b)(1), the Secretary has the burden of proving: (a) the applicability of the cited standard, (b) the employer's noncompliance with the standard's terms, (c) employee access to the violative conditions, and (d) the employer's actual or constructive knowledge of the violation (*i.e.*, the employer either knew or, with the exercise of reasonable diligence could have known, of the violative conditions). *Atlantic Battery Co.*, 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994).

Reynolds' written safety program which was in the job trailer, addresses overhead loads (Exh. R-I; Tr. 635). Under the section entitled "Trenching and Excavation Safety," Reynolds instructs:

> **Overhead loads**: Employees are not allowed under loads handled by lifting or digging equipment. They must also stand clear of any truck being loaded or unloaded so that they will not be struck by spillage and debris. (Exh. R-I, p. 85).

This requirement is restated in the section entitled "General Trenching Safety Rules," where it warns employees: "Do not work under any loads of mechanized digging equipment" (Exh. R-I, p. 87).

Reynolds' written rules are the same as OSHA's requirement which prohibits employees from working under loads. OSHA standard at § 1926.651(e) provides:

> No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials.

Although, as the Secretary, argues a bucket is not a load, there is no evidence in this case, the bucket was over the head of an employee (Tr. 517). When the bucket fell, it hit the side of the excavation and rolled into the excavation pinning the employee.

Reynolds safety program is comparable to OSHA's requirements. CO Denton acknowledges Reynolds has a rule against working under an excavator bucket or suspended load. He did not find any employees who were working underneath a load at the time of the accident. He also agrees Bumgardner was aware of the requirement and never positioned the bucket overhead of an employee (Tr. 517-518).

With regard to rules for use of the quick coupler, there is no dispute Reynolds' written safety program does not discuss its use (Tr. 461). However, Reynolds maintained the excavator manual and the coupler decal. The operation manual and the decal maintained by Reynolds is considered part of an employer's safety program. The manual and coupler decal in the cab informed the operator of the procedure in locking and unlocking the quick coupler (Exh. C-10, p. 23; Tr. 461). An equipment operator is expected to comply with the manufacturer's requirements (Tr. 406).

Bumgardner was aware of coupling requirements (Tr. 435). He normally shakes the bucket and scuffs it or drags it backwards (Tr. 379). He was also aware of the curl-in procedure (Exh. C-4; Tr. 39-40).

A violation of § 1926.20(b)(1) is not established.

Citation No. 1, Item 3 - Alleged Serious Violation of § 1926.20(b)(2)

The citation alleges the connection between the excavator bucket and the quick coupler was not inspected every time a work tool was attached. CO Denton testified the operator failed to properly inspect the connection between the bucket and the quick coupler on the night of the accident. There is no dispute a spring was missing from the quick coupler (Tr. 78, 353, 391, 466, 561). Section 1926.20(b)(2) provides, as part of an accident prevention program:

> Such programs shall provide for frequent and regular inspections of the job sites, materials, and equipment to be made by competent persons designated by the employers.

Section 1926.20(b)(2) requires inspections necessary to detect and correct hazards of which a reasonably prudent employer would be aware. In this case, the Secretary contends each time a bucket or other work tool is attached by the quick coupler, the connection should be inspected (or otherwise tested as the manufacturer specified) to prevent an incomplete attachment.

There is no dispute the operator failed to curl-in the stick so that he could visually check the coupler connection from the cab. Reynolds did not have such a requirement as part of its inspection program. The failure to do a visual check as specified by the manufacturer in the operation of the coupler is not the same as the regular inspection of equipment required in a safety program. The visual check is part of the coupler's operation. As noted by the Review Commission, in *R & R Builders, Inc.*, 15 BNA OSHC supra at 1389;

> The standard's language requiring "frequent and regular" inspections of the "job site" does not reasonably inform an employer that his inspection must be performed in such a way and at such times as to assure observation of every operation performed at a jobsite. The standard imposes the concept of a regular schedule, not a special schedule, and points to physical things - the "job site, materials, and equipment" - not the operations themselves.

The missing spring, however, shows that Reynolds's inspection of equipment was inadequate. Reynolds' written safety program under the section entitled "Trenching and Excavation Safety" requires the competent person:

> Perform inspections of equipment and trench conditions at start of each shift or as needed by changing conditions.
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> * * * * *
>
> Examine all equipment to verify conditions. (Exh. R-I, p. 86).

It is undisputed Reynolds performed periodic maintenance on the Caterpillar 325BL (Exh. R-F). Maintenance on the excavator was performed on May 24, 2004, two weeks prior to the accident, when the hydraulic line was replaced and oil added. Earlier, the excavator underwent repairs for a blown turbo and replacement of fluids in October, 2003.

The spring missing from the quick coupler assembly should have been detected (Tr. 466). The spring was from the bar that holds the quick coupler if there was a hydraulic failure (Tr. 466, 562-563). According to Reynolds, mechanics perform walk around inspections of excavators, maintain fluid levels and service the excavators in accord with the company program. The maintenance records do not show any maintenance on the quick coupler after it was installed on February 4, 2000 until after the accident on June 10, 2004 (Tr. 596-597, 624-625, 675). The walk around checklist used by the mechanics does not contain a reference to the quick coupler (Exh. R-F). Only items such as the back up alarm, windows, tracks, air filters and tires are identified as inspected.

Caterpillar's operation and maintenance manual for quick coupler advises uses to inspect the coupler for missing parts (Exh. C-10 p. 22; Tr. 523, 616). Reynolds agrees (Tr. 616). The spring is a missing part. The manual specifically directs the user to:

> inspect the quick coupler for the following conditions: loose bolts, oil leaks, worn parts, and broken parts. Inspect the quick coupler for missing parts. Check the overall condition of the quick coupler. Check the overall condition of the hydraulic system.
>
> Inspect the condition of the hydraulic cylinders, the hydraulic lines and the hydraulic fittings.
>
> * * * * *
>
> Inspect the welds, the pins, and the bores for damage. If the components are damaged, consult your Caterpillar dealer.

Also, Reynolds placed responsibility on the operator to perform a daily walk around inspection and greasing of his excavator (Tr. 651). Supervisor Vinson testified that on the evening of June 10, 2004, he saw Bumgardner do a walk around inspection of the excavator (Tr. 675). His daily inspection included checking the oil, tire pressure etc. (Tr. 430, 468).

There is no evidence the inspections by maintenance or the operator included the quick coupler. The missing spring is indicative of Reynolds inadequate inspection program. The missing spring was visible and should have been detected either by maintenance or the operator.

A violation of § 1926.20(b)(1) is established.

Citation No. 2, Item 1 -Alleged Willful Violation of § 1926.652(a)(1)

The citation alleges employees working in an excavation, 5 feet, 7 inches deep in Type B soil without shoring, sloping or other cave-in protection, were exposed to a cave-in hazard. Section 1926.652(a)(1) provides:

> Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with paragraph (b) or (c) of this section except when:
>
> (i) Excavations are made entirely in stable rock; or
>
> (ii) Excavations are less than 5 feet (1.52m) in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

There is no dispute the excavation at issue was not in stable rock. The excavation measured 7 feet wide and 25 feet long (Tr. 526-527). There is also no dispute Leicht and Shearn were working in the excavation under the supervision of Reynolds' superintendents on site. Leicht testified they typically performed the jobs being performed on the night of the accident (Tr. 122-125, 131-132, 141, 143-146).

CO Denton classified the soil as Type B. He described the soil as dry, crumbly and made of "fairly" hard clay. He saw no cracks in the walls or accumulations of water (Tr. 477-478, 514). Before beginning work on June 9, 2004, Reynolds' competent person classified the soil as Type C based on a thumb penetration test. He noted water seepage, previously disturbed soil and a major highway was within 600 feet (Exh. C-27).

Regardless of the soil classification, it is undisputed the walls of the excavation were not shored, sloped or otherwise supported to prevent cave-ins as required by § 1926.652(a)(1) (Tr. 53). Although a trench box was on site, the excavation's walls were not shored (Tr. 659). With regard

to sloping, the walls should have been at a 45 degree angle (one-to-one) if in Type B soil. For Type C soil, the angle would be even greater. The walls of the excavation were almost vertical; 85 degrees based on an angle indicator (Tr. 478).

However, the cave-in protection requirements under § 1926.652(a)(1) apply if the excavation is 5 feet or more in depth for either Type B or C soil. Reynolds argues the excavation was less than 5 feet deep and cave-in protection was not required (Reynolds Brief, p. 12; Tr. 658). Although the required flow line depth under the overpass was 5.87 feet, the supervisors testified twelve inches of top dirt was removed from the area before digging the excavation. The "flow line depth" is the depth from the ground surface to the inner diameter base of the pipe being laid (Tr. 482-483). After removing the top dirt, superintendent Vinson testified he believed excavation was approximately 4 feet 9 inches deep (Exh. C-3; A and C; Tr. 657-658). Vinson determined the depth by subtracting the 12 inches of the cutback from the required flow line depth of 5.87 feet (Reynolds Brief, p. 11-12). According to Reynolds, the excavation was inspected at the start of operations and at 1:00 a.m. (Exhs. C-25, C-27; Tr. 659, 660).

Reynolds argument as to the excavation depth is rejected. Reynolds made no actual measurements of the excavation's depth (Tr. 659). The cut sheets, job plans, and road markings indicated the excavation was to be at least 5.87 feet deep (Exhs. C-12, C-13; Tr. 159, 171-172, 487, 652, 654). The depth measurements were marked on road in plain view of anyone on the job site (Tr. 157-158, 159, 180-181). In Reynolds' daily trenching log for June 9, 2004, the depth of the excavation was identified as 5 feet. It is noted cave-in protection is required even if the excavation was only 5 feet deep (Exh. C-27; Tr. 488-489).

When he arrived on site, CO Denton measured the depth of the excavation at the end of the pipe where Shearn had been working as 5 feet 7 inches deep on one side of the pipe and 6 feet deep on the other side of the pipe (Tr. 477, 526-527). The actual depth of the excavation may have been even deeper because Denton's measurements likely included dirt that fell into the excavation during the rescue effort (Tr. 662, 677). Although CO Denton observed a slight cutback on one side of the excavation, it did not affect his 5 foot 7 inch measurement taken on that side (Tr. 491).

The depth measurements by Denton are supported by the testimony of Sgt. Jeremy Landis, Ohio State Highway Patrol. Sgt. Landis estimated the excavation depth to be 5 feet 9 inches based

on observing his partner in the excavation which was over his head (Tr. 49). Similarly, Captain Douglas Wehmeyer, Deerfield Township Fire Department, testified he could only see the head of another firefighter standing on the pipe in the excavation. He estimated the other firefighter was 5 feet, 7 inches tall (Exh. C-5(D); Tr. 52-53, 55, 57). It is also noted the rescue team shored the excavation in its attempt to rescue Shearn (Tr. 62). Even though Leicht thought the excavation was not "very deep," he had to walk down the slope from the back of the pipe to access the bottom (Tr. 148).

Also, even with the removal of twelve inches of top dirt, Reynolds should have known the excavation was still more than 5 feet deep and requiring cave-in protection. As stated, the required flow line was 5.87 feet (Tr. 159-160). Below the flow line, the concrete pipe was approximately 3 inches thick (Tr. 160, 669). Underneath the pipe, a bed of sand, 3 to 6 inches thick, was required (Tr. 167, 654, 668). To achieve a flow line of 5.87 feet, the excavation had to be dug at least 6 feet, 2 inches deep. If the top 12 inches had been removed, the excavation would have been at least 5 feet 2 inches deep. Superintendent Vinson, as competent person, should have known to consider the depth to the bottom of the excavation and not to the flow line (Tr. 668).

A violation of § 1926.652(a)(1) is established.

Willful Classification

A willful violation is "one committed with intentional knowing or voluntary disregard for the requirements of the Act, or with plain indifference to employee safety." *Conie Construction, Inc.*, 16 BNA OSHC 1870, 1872 (No. 92-264, 1994). A willful classification requires a heightened awareness of the illegality of the conditions or a state of mind showing conscious disregard or plain indifference. A showing of "malicious intent" or "venal motive" is not necessary.

Reynolds' written safety program discusses the types of cave-in protections required (Exh. R-I, p. 78;Tr. 491). Reynolds' supervisors and some employees have received excavation training (Tr. 490-491). Also, Reynolds' safety office conducted safety inspections of the project. The safety office found violations on November 13, 2003, April 15, 2004, and May 3, 2004 (Exh. R-E). None of the violations involved a failure to provide cave-in protection.

Prior to the accident, the record shows Reynolds has received thirteen OSHA citations (7 Federal OSHA and 6 Indiana OSHA) for violations of § 1926.652(a)(1) since 1994 (Exh. C-1,

Request for Admission Nos. 13, 14; Tr. 497-498). The May 4, 2000 citation for willful violation of § 1926.652(a)(1) was affirmed by Decision and Order dated July 16, 2001. *Reynolds, Inc.*, 19 BNA OSHC 1653 (No. 00-0982, 2001)(ALJ). Reynolds' extensive history of citations involving the same standard for lack of cave-in protection may be indicative of the employer's indifference to its safety obligations under the Act. *Cedar Construction Co. v. OSHRC*, 587 F.2d 1303, 1305-1306 (D.C. Cir. 1978)(employer willfully violated excavation safety standards because it was aware of the standards since it had been cited three times previously).

In this case, Reynolds had three supervisors - the foreman and two superintendents on site at the time of the accident. The supervisors made a conscious decision not to utilize cave-in protection. In his statement, Vinson stated

> Wayman [Goldman], Ron Flick, and myself all discussed using a box under the I-71 bridge area. Came to decision not to use the box due to cable line, pillars, bridge clearance. Have seen cave-ins before. Have not had any injuries from cave-ins. (Exh. C-25; Tr. 498).

Reynolds' heightened awareness of the need for cave-in protection is established in this case by Reynolds' history of prior citations involving § 1926.652(a)(1), the markings on the road showing the flow line depth, Reynolds trench inspection log/report showing the excavation was 5 feet deep, and the vertical walls of the excavation. A trench box was on site but was not used (Tr. 492).

Reynolds' superintendents belief the excavation was not 5 feet deep does not show good faith. The test of good faith is objective--whether the employer's belief concerning a factual matter, or concerning the interpretation of a rule, was reasonable under the circumstances." *General Motor Corp., Electro-Motive Division*, 14 BNA OSHC 2064,2068 (No.82-630 et al., 1991).

Reynolds failed to perform an objective analysis of the excavation's depth but instead relied on its belief. It made no measurements. The supervisors chose to substitute their belief for an objective test. An employer who knows the requirements of the standard but decides not to comply, even if it believes its approach provides protection at least equivalent to OSHA's requirements, is still in willful violation. *Reich v. Trinity Industries, Inc.*, 16 F.3d 1149, 1152 (11th Cir. 1994).

Citation No. 3, Item 1 - Alleged Repeat Violation of § 1926.21(b)(2)

The citation alleges Reynolds failed to instruct employees on cave-in hazards and the hazards associated with the use of quick coupler devices. Section 1926.21(b)(2) provides:

> The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.

To establish a violation of § 1926.21(b)(2), the Secretary must show the employer failed to instruct employees on "(1) how to recognize and avoid the unsafe conditions which they may encounter on the job, and (2) the regulations applicable to those hazardous conditions." *Superior Custom Cabinet Co.*, 18 BNA OSHC 1019, 1020 (No 94-200, 1997) *aff'd without published opinion*, 158 F.3d 583 (5th Cir. 1998). The training may include appropriate on the job instructions to employees. *Archer-Western Contractors, Ltd.*, 15 BNA OSHC 1013, 1019-1020 (No. 87-1067, 1991).

The record shows employees of Reynolds have received safety training including the 10- hour OSHA course and some employees even the 30 hour course (Exhs. R-L through R-Q; Tr. 473).

The standard, however, requires each employee is given the appropriate training. With regard to excavation training, Reynolds offered no training documentation for laborers Leicht and Shearn except for their participation in tool box talks (Tr. 470). The weekly tool box meetings were with all employees on the project (Exh. R-C; Tr. 471).

Justine Leicht started to work for Reynolds in November 2003. He had no prior excavation experience or training (Tr. 141). When he started work, Leicht testified he did not receive orientation training (Tr. 146). Leicht began working on the Mason Montgomery project about month after he started work (Tr. 124, 141). He did not see Reynolds' safety and health manual (Tr. 146-147). Leicht testified he received no training from Reynolds except for the weekly tool box talks (Tr. 130, 134). He described the talks as lasting five to ten minutes and held at the beginning of the shift. He did not receive any documents (Tr. 130, 148). The record shows Leicht attended a total of twenty-one tool box talks during the period November 3, 2003 to June 7, 2004 (Exhs. C-11, R-C; Tr. 148). Only 3 of the talks were shown to have dealt with excavations and moving equipment; February 9, 16, and 23, 2004 (Exh. C-11). None of the talks involved the quick coupler.

The tool box talks are not shown to have provided sufficient information regarding the hazards associated with cave-ins and the need for protective systems discussed in § 1926.652 and Reynolds' safety manual. Leicht's lack of training was evident when he was asked to describe his knowledge regarding the hazards associated with excavations. He testified he knew of a requirement for a "box" but not the depth which triggers the requirement (Tr. 130-131).

Also, it is undisputed that Reynolds did not train its employees about the hazards associated with the use of quick couplers and the unexpected release of work tools. Reynolds did not train employees about the procedures to prevent attachments from unexpectedly detaching (Exh. C-1, Request for Admissions Nos. 35, 36, 37). Operator Bumgardner specifically stated he had not received training on quick couplers (Tr. 474).

A violation of § 1926.21(b)(2) is established.

Repeat Classification

A violation is considered repeat under § 17(a) of the Act if, at the time of the alleged repeat violation, there was a final order against the employer for a substantially similar violation. *Potlatch Corporation*, 7 BNA OSHC 1061, 1063, (No. 16183, 1979). The Secretary establishes substantial similarity, *prima facie*, by showing that both violations are of the same standard. *Monitor Constr. Co.*, 16 BNA OSHC 1589, 1594 (No. 91-1807, 1994).

There is no dispute Reynolds has not previously been cited for failing to train employees with respect to the hazards associated with using a hydraulic quick coupler (Tr. 475).

The record, however, does show Reynolds was cited previously for a violation of § 1926.21(b)(2) in February 19, 2003. The prior citation states "adequate instruction in the recognition and avoidance of unsafe working conditions such as the hazards of cave-in" (Exh. C-29). It alleges the excavation contained vertical walls and provided no cave-in protection in the area where the employees were working. Such conditions existed in present citation. The prior citation became a final order on March 11, 2003 (Exhs. C-1, Request for Admission Nos. 29, 30, C-29; Tr. 475, 507-508).

Based on the prior citation for violation of § 1926.21(b)(2) which involved the same cave-in hazard and same abatement, the citation in this case for violation of § 1926.21(b)(2) is properly classified as repeat.

Penalty Determination

The Commission is the final arbiter of penalties in all contested cases. In determining an appropriate penalty, the Commission is required to consider the size of the employer's business, history of previous violations, the employer's good faith, and the gravity of the violation. Gravity is the principal factor to be considered.

Reynolds is a large employer with in excess of 800 employees (Tr. 593). Reynolds is not given credit for history because of the prior citations in the preceding three years. Credit is given to Reynolds for good faith for penalty purposes because it maintains a written safety program; provides safety training to supervisors; and conducts safety inspections of job sites (Exhs. R-I, R-L). Reynolds employs a safety director and five full time safety employees (Tr. 686). Reynolds claims it budgets over $1 million for safety and has achieved a 50% reduction in its lost time injury rate since 1999 (Tr. 691).

A penalty of $1,000 is reasonable for violation of § 1926.20(b)(2). Reynolds did not have an inspection program for the quick coupler. Although not the cause of the unexpected release in this case, the missing spring could have caused a problem if there was a hydraulic failure.

A penalty of $25,000 is reasonable for willful violation § 1926.652(a)(1). The excavation lacked any cave-in protection. Three supervisors were on site and made a conscious decision not to utilize cave-in protection. Two employees were working in the excavation exposed to the cave in hazard. Reynolds' history of prior citations shows thirteen citations for the lack of cave-in protection. The citation in 2000 resulted in a willful determination.

A penalty of $10,000 is reasonable for repeat violation of § 1926.21(b)(2). Leicht and Shearn were not trained in excavation hazards and the required abatement. The three tool box talks on excavations were not shown adequate to impart the required information. Also, employees were not trained on the use of quick couplers or the specific warnings about inadequate connections. According to Reynolds, it did not even have a copy of Caterpillar's coupler manual.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure.

ORDER

Based upon the foregoing decision, it is ORDERED that:

1. Citation No. 1, Item 1, alleged serious violation of § 5(a)(1) of the Act, is vacated and no penalty is assessed.
2. Citation No. 1, Item 2, alleged serious violation of § 1926.20(b)(1), is vacated and no penalty is assessed.
3. Citation No. 1, Item 3, alleged serious violation of § 1926.20(b)(2), is affirmed and a penalty of $1,000 is assessed.
4. Citation No. 2, Item 1, alleged willful violation of § 1926.652(a)(1), is affirmed as willful and a penalty of $25,000 is assessed.
5. Citation No. 3, Item 1, alleged repeat violation of § 1926.21(b)(2), is affirmed as repeat and a penalty of $10,000 is assessed.

/s/ Ken S. Welsch
KEN S. WELSCH
Judge

Date: **March 20, 2006**