**Overcoming Hazards Unique to Temporary Workers** 

Temporary Worker Program Workbook

4 Hour

First Edition



Rutgers School of Public Health

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# **Table of Contents**

# **Overcoming Hazards Unique to Temporary Workers**

# Section One: Introduction

□ The Temporary Worker Dilemma

# Section Two: Rights and Responsibilities

- □ All Workers, Permanent and Temporary have a Rights
- Responsibilities under the OSH Act: General Duty Clause
- A Right to Be Heard: Your Rights as a Whistleblower
- □ Limited Right to Refuse to Work
- □ Applicable Federal Code References
- □ Letters of Interpretations

# Section Three: What to Expect on YOUR FIRST DAY at a Workplace

- □ Introduction
- □ Exercise: Critical Assessment
- □ Temporary Workers' Safety and Health Bill of Rights
- □ How Temporary Worker Programs fit into an employer's safety process
- □ "OIFLIES"
- Pre-Arrival Checklist
- Exercise
- □ Sample Pre-arrival Temporary Employee Form

# Section Four: Case Studies Section Five: Group Exercises Section Five: Debriefing Workshop

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#### **Section One: Introduction**

#### The Temporary Worker Dilemma

According to labor statistics, private business surveys and forecasts, employers are increasingly relying on temporary workers to fulfill the demand for labor. The result of this economic trend, which has grown from 2004 to 2014 by 23.9%, has been a commoditization of workers as if workers are fungible; that is, interchangeable parts of production, irrespective of skillsets, familiarity with their workplaces and safety and health concerns. According to the Occupational Safety and Health Administration (OSHA), employers cannot differentiate the effectiveness of training and hazard controls between permanent and temporary workers, yet this practice remains common in many industries.

This serious trend is simultaneously acerbated in various high-risk industries, such as the construction industry, where workers may be unfamiliar with the means and methods of production and lacking the basic skillsets to perform their tasks will make more errors in judgment that equate to more exposures, accidents and deaths. However, occupational hazards to temporary workers are not isolated to the construction industry as a recent fatality of a temporary warehouse worker in Woodbridge, New Jersey echoes the need for additional training for these workers. Other dangers to temporary workers are evidenced from the spike of fatalities of workers during Hurricane Sandy Recovery, and health exposures from the clean-up of the World Trade Center Site at Ground Zero. Unskilled and often untrained seasonal workers are also subject to greater risk due to their lack of experience and familiarity.

The disconnect between permanent and temporary workers is two-pronged where employers and employees do not realize that workers, regardless of their tenure inside of an occupational environment, must be trained in how to perform their work and how to perform it safely without exposure to recognized hazards. This program seeks to educate employers to the many advantages of full-time employees and provide mechanisms that allow employers to protect temporary employees from hazards. This training will provide an expandable and flexible template so employers can plan, develop, build upon, and utilize best practices and hiring strategies at every occupational level. Understanding why temporary workers have unique challenges, and not merely knowing they do, is fundamental to long-term growth and can impact the safety culture of a company.

Many businesses, especially smaller ones, find it difficult to establish controls to decrease the hazards associated with temporary or contingent employment. The first step to abatement requires all stakeholders; that is employers, managers, and workers to recognize the unique problems associated with temporary work. The skill to recognize requires big picture perspective and an understanding of what can go wrong, which many employers often ignore during day-to-day operations of a business.

The second prong of training is that many employees do not know an employer's obligations under the OSH Act of 1970. This program creates a "Temporary Worker's Bill of Rights" where workers will understand what to expect their first day on the job, going forward and their employers obligations. Workers need to know what is expected of them and what is required by their employer and the placing agency.

In an economy still in flux, many displaced workers find themselves working in new and completely different industries. Many of these displaced workers must work in industries where they are unaware and unfamiliar with expectations and become vulnerable in many ways. Many of them have lost their unemployment benefits and have little means of substance and hence become subject to any means of maintaining a livelihood, which also makes them less likely to stand up for their rights and object to recognized hazards in their workplaces. Economic hardships, unemployment and underemployment often lead workers to taking work that they are unfamiliar with or would ordinarily not engage.

This program is designed to teach workers what to expect within a temporary workplace and teach employers what OSHA expects of them.

#### Section Two: Rights and Responsibilities

#### **Responsibilities under the OSH Act: General Duty Clause**

It is both wise and mandatory for an employer to start any undertaking with some reasonable anticipation of what hazards and obstacles you may likely encounter because it is essential that in each workplace an employer provides the means of assessing and identifying potential hazards and where applicable utilize measures that seek to eliminate, prevent and protect such hazards from causing harm. It is critical that you perform an assessment of your existing Temporary Worker Safety & Health Program to see if you can benchmark it against, code, best practice and industry standards.

We must always keep in mind the mandatory nature of program management flows directly from The Williams-Steiger Occupational Safety and Health Act of 1970, which can also be referred to as, "The Occupational Safety and Health Act of 1970" (OSH Act). The primary purpose of the OSH Act is to assure, so far as possible, safe and healthful working conditions for every working man and woman, but in various places the OSH Act or OSHA regulations clearly spells out the responsibility of an employer and employees:

The Occupational Safety and Health Act of 1970: "General Duty Clause"

5. General Duties

(a) 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;

(2) Shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

7

## A Right to Be Heard: Your Rights as a Whistleblower

An employee may file a complaint with OSHA if the employer retaliates against them or takes unfavorable personnel action because the employee engaged in protected activity relating to workplace safety and health.

#### Whistleblower Laws Enforced by OSHA

□ Complaints need to be filed within 30 days after an alleged retaliation.

You may file complaints by: telephone calling (800) 321-OSHA for situations where you believe there is an immediate risk that threatens life or injury or call a local area office (number listed below), you can also go online at http://www.osha.gov/as/opa/worker/complain.html and download forms for faxing OSHA at: <u>http://www.osha.gov/oshforms/osha7.pdf</u>Contact your local OSHA office as soon as possible, because you must file your complaint within the legal time limits. New York (212) 337-2378

□ OSHA will conduct an in-depth interview with each complainant.

The investigation must reveal that:

- The employee engaged in protected activity;
- The employer knew about the protected activity;
- The employer took an adverse action; and
- The protected activity was the motivating factor, or under some laws, a contributing factor in the decision to take the adverse action against the employee.

#### Limited Right to Refuse to Work

Employees have a limited right under the OSH Act to refuse to do a job because conditions are hazardous. You may do so under the OSH Act only when:

(1) You believe that you face death or serious injury (and the situation is so clearly hazardous that any reasonable person would believe the same thing);

(2) you have tried to get your employer to correct the condition, and there is no other way to do the job safely; and

(3) the situation is so urgent that you do not have time to eliminate the hazard through regulatory channels such as calling OSHA.

 Regardless of the unsafe condition, you are not protected if you simply walk off the job



## A Right to Be Heard: Your Rights as a Whistleblower

OSHA's Whistleblower Protection Program enforces the whistleblower provisions of more than twenty whistleblower statutes. Rights afforded by these whistleblower acts include, but are not limited to, worker participation in safety and health activities, reporting a work related injury, illness or fatality, or reporting a violation of the statutes.

Protection from discrimination means that an employer cannot retaliate by taking "adverse action" against workers, such as:

- □ Firing or laying off
- □ Blacklisting
- Demoting
- □ Denying overtime or promotion
- □ Disciplining
- Denial of benefits

- □ Failure to hire or rehire
- Intimidation
- Making threats
- Reassignment affecting prospects for promotion
- □ Reducing pay or hours

## Applicable Federal Code References

A Temporary Worker Safety & Health Program is a plan where employers evaluate potential workplace hazards in their workplaces and seek to control these hazards, effectively preventing employee risk to injury and illness from accidents and exposures. The basic framework for an IIPP includes; management leadership, worker participation in the program, hazard identification and assessment, hazard prevention and control, education and training, and program evaluation and improvement. Several state have make IIPP mandatory and many companies consider it best practices. However, stopping short of federal law requiring explicit IIPP, plans, federal code does address program management. The following selected code references may be applicable to a IIPP plan as it pertains to the use of temporary workers. **Contractor** 

## Requirements

1926.20(a)(1) Section 107 of the Act requires that it shall be a condition of each contract which is entered into under legislation subject to Reorganization Plan Number 14 of 1950 (64 Stat. 1267), as defined in 1926.12, and is for construction, alteration, and/or repair, including painting and decorating, that no contractor or subcontractor for any part of the contract work shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety.

#### **Accident Prevention Responsibilities**

- □ 1926.20(b)(1) It shall be the responsibility of the employer to initiate and maintain such programs as may be necessary to comply with this part.
- 1926.20(b)(2) 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.
- 1926.20(b)(3) The use of any machinery, tool, material, or equipment which is not in compliance with any applicable requirement of this part is prohibited. Such machine, tool, material, or equipment shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from its place of operation.
- 1926.20(b)(4) The employer shall permit only those employees qualified by training or experience to operate equipment and machinery.

## **General Training Requirements**

The Secretary shall, pursuant to section 107(f) of the Act, establish and supervise programs for the education and training of employers and employees in the recognition, avoidance and prevention of unsafe conditions in employments covered by the act.

- Employer responsibility. 1926.21(b)(1) The employer <u>should</u> avail himself of the safety and health training programs the Secretary provides.
- 1926.21(b)(2) The employer <u>shall</u> 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.

#### Section Three: What to Expect on YOUR FIRST DAY at a Workplace

#### Introduction

As a temporary worker you are exposed to unique hazards. Businesses often have to increase the number of workers they need to meet necessary labor demands brought about by various fluctuations such as seasonal upticks in sales, increased emergency efforts after a hurricane, or a construction contractor swelling their ranks to expedite the completion of a project. No matter the circumstance that necessitates the use of temporary workers, the statistical rates of injury illness and fatalities are increasing. Very often an employer is guessing at your competency, skill level, aptitude and training. It's very important that you, as a worker, be extremely forthcoming about your aptitude and skill level and degree of comprehension when setting upon working for any employer but even more critical when that employer has hired you on a temporary basis.

There are many expectations required of your employer, many of which this class and handbook address, but your cooperation is also necessary since safety and health compliance is a team effort and you are part of the team. Your employer needs you to speak up and ask questions when you don't fully understand a process or a training; it's not only your right but your responsibility because you are helping your employer comply with federal laws and codes and helping yourself stay safe and work in wellness.

This training will introduce you to what you are supposed to encounter in those first critical days at work as a temporary worker and explain you rights and your responsibilities in the workplace. As you go through this class and later review this material, keep in mind with great seriousness that this class which is produced under a grant from the United States Department of Labor Occupation Safety and Health Administration, indeed all the labor laws of the United States, are here because of some hardship or tragedy befallen to other workers in the past and these laws and codes are designed to be avoid and prevent similar future occurrences. Maintaining a safe and hazard-free work environment is a team effort and your involvement is an important part of it; speak up and help make the process better.

**Exercise: Critical Assessment:** It would be wise to start any undertaking with some reasonable assessment of what your company has in place already. What has been your experience been working with temporary workers and what would you suspect are the problems?



## Temporary Workers' Safety and Health Bill of Rights

- 1. You have a right to work in a workplace that is free from recognized hazards that can harm you.
- 2. You have a right to know about and receive training on hazardous chemicals that you may work with or come in contact and how to recognize, avoid and prevent exposure.
- 3. You have a right to receive, at no cost to you, appropriate personal protection equipment and be trained in its proper use and limitations.
- 4. You have a right to receive clear workplace orientations explaining the scope and tasks you are hired to perform and the associated hazard and controls.
- 5. You have a right to training in hazard avoidance, prevention and protection for the tasks you are employed to perform in an effective manner in a language you understand.
- 6. You have a right to refuse to work if you have told your employer of a safety or health concern, they have not abated the condition and you cannot easily reach OSHA.
- 7. You have a right to speak-up about occupational safety and health concerns without fear of retaliation.
- 8. You have a right, if you are sent from a staffing agency, that the agency's client (the host employer) and your employer agency cooperate together to provide you with a safe work environment.
- You have right to work in an establishment where your employer keeps accurate records regarding recordable injuries and illnesses and follows OSHA standards and all other regulatory requirements under the law.
- 10. You have a right to workplace where your employer, either the host employer or your agency employer, frequently and regularly evaluates your workplace for new occupational safety and health hazards.

#### Temporary Workers' Safety and Health

#### Bill of Rights

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#### How Temporary Worker Programs fit into an employer's safety process



16



## Why do Employers, Managers and Employees get into Trouble?

"OIFLIES" is a quick way to remember how accidents happen that affect the safety and health employees. These are often the excuses safety and health professionals and compliance officers hear in the field at the scene of an accident or significant incident. It's helpful to recognize these potential traps before work starts as they typically alter "normal" operations. Train everyone in your workplace to look for these leading indicators that point to a problem that may be around the corner.

- Overconfidence
- □ Ignorant or Inexperienced.
- □ Faster: "It was faster to do it this way."
- Less Expensive: "It was cheaper to do it this way."
- □ Improvised: Used equipment in a manner it was not intended to be used.
- □ Easier: "It was easier to do it this way."
- □ Short term Exposure: "Was only going to be there for a short time."

**Exercise:** Recognizing O.I.F.L.I.E.S: Have you experienced in the workplace occurrences where something happened because of any underlining circumstance that brought about an accident or an exposure? If so discuss it and address how the hazard could be avoided or prevented in future. Remember, sharing such details provides other trainees in this class an opportunity to learn through your experience, perhaps enlightening them to something in their own respective work environments avoiding an accident or exposure that will never occur.



#### **Pre-Arrival Checklist**

The following are some helpful techniques to assure that temporary employees are fit for to perform occupational tasks and prepared to work in a safe and hazard free or controlled work environment.

- □ Is there a bilateral employer relationship?
- □ Is there a Host and Staffing Agency employer contract defining responsibility?
- □ Have roles been established between Host Employers and Staffing Agencies?
- □ Has there been an evaluation of the Host Employers worksite?
- □ Has agency staff been trained to recognize Safety and Health Hazards?
- Do the standards and best practices between employers coincide?
- □ Is there a well-defined scope of work in the contract?
- □ Is the temporary employee trained to perform scope of work?
- Does the temporary employee have experience to perform scope of work?
- □ Is there an orientation at the Host Employer's workplace?
- □ Has the Host employer's Right-to-Know training performed before work?
- □ Is there a mentor program at the Host Employer's workplace?
- □ Is there an Injury and Illness tracking system in place for proper recordkeeping?
- Does Host and Staffing Agency have an Injury and Illness Prevention Program
- □ Is communication maintained between employee and Staffing Agency?
- □ Is training and direction performed in the language clearly understood?
- Do all employees know their rights?

Exercise: Can you think of some specific leading indicators that temporary workers may be more susceptible to in your workplace?



# Sample Pre-arrival Temporary Employee Form

Employee:					
Host Employer:					
Agency Employer:					
Employee Experie	nce:	Employee Information:			
Employee Training	;:		Language:		
			Employer that Performed Assessment		
Task	Potential Hazards	Hazard Controls	Host	Agency	
Task	Potential Hazards	Hazard Controls	Host	Agency	
Task	Potential Hazards	Hazard Controls	Host	Agency	
Host Employer Sig	nature:	Agency Employer Signature:			

#### Section Four: Case Studies

Case Study One: Temporary Mill Worker Killed in Fall Down Manlift Shaft

On December 21, 2007, a 56-year-old temporary worker was killed when he fell down a manlift shaft at an animal-feed processing plant. OR-FACE received notification the same day. This report is based on a site visit and interview with the employer by an OR-FACE investigator, and information from Oregon OSHA, police, and medical examiner reports.

The feed processing plant was one of 65 plants in a national agriculture and dairy cooperative firm. The Oregon plant had been in operation for 35 years, and was purchased by the cooperative about 5 years earlier. The plant employed 14 workers (10 in plant, 4 in administration), working in two shifts. Raw feed material, such as corn, was delivered by rail and augured into bins on the second floor of the plant. The feed was then ground and blended with other food pellets and grains, and dumped into tanker trucks or bagged for shipping.

A temporary hiring agency was used by the firm to provide workers at its two Oregon locations. The temporary agency trained workers with an orientation video on basic safety requirements and a test. The plants provided specific on-the-job training. The safety training provided to temporary workers at the plant in this incident involved instructions on how to operate the manlift. All job instruction and safety training at the agency and the plant were in English.

The plant followed corporate safety programs, held monthly safety meetings, and performed regular safety inspections. Toolbox safety meetings were held periodically. All workers were provided with personal protective equipment. Temporary workers, hired as cleaners (sweeping, shoveling, picking up litter), were given on-the-job training.

The company had a written safety program for the manlift and elevator at the plant, consisting of procedures, inspections, and training. Orientation included the manlift manufacturer's safety video. Manlift safety instructions specified that no freight or handheld tools were allowed while riding the lift.

The foreign-born worker in this incident and a friend were hired together by a temporary agency to work as cleaners at the feed processing plant. The men were both native Spanish speakers. They received on-the-job training at the plant from their supervisor in English. Although the Spanish-speaking cleaner had very limited proficiency in English, he had lived and worked in the USA for 30 years, and was comfortable managing tasks in an English-speaking environment. He had a physical impairment, a "slow" eye that impaired his ability to focus, which may have been a contributing factor in this incident.

#### Investigation

On the day of the incident, the cleaner had worked at the plant less than 30 days. He arrived at 6 a.m. for the day shift and was assigned to sweep in the basement, where he had worked his previous shift. Two other workers were in the plant at the time.

For an unknown reason, the cleaner went to the second floor, and about 10 minutes later a crashing noise in the manlift was heard by a coworker. The cleaner had fallen down the manlift shaft and was dangling from one of the crossbeams about 8 feet below the second-floor opening. A broom that fell into the shaft with the cleaner lodged against the beams and prevented him from falling farther. A fixed platform step on the continuously moving manlift belt struck him on the back of the head, and was unable to pass. The belt slipped on the drive wheels.

A coworker climbed the ladder in the manlift shaft and located the victim on the down side. Another coworker stopped the manlift and called for emergency assistance. Rescue workers found the victim dead at the scene.

Workers used the manlift to move up and down between floors. The 15.5-inch-wide manlift belt ran in a continuous loop from the basement through holes in the first and second floors, then through a roof housing; one side up and one side down. Platform steps were attached to the belt every  $11\frac{1}{2}$  feet, with hand grips halfway between the steps. The floor openings were roughly circular, about  $2x2\frac{1}{2}$  feet in diameter. A fixed ladder ascended the shaft, and a stop cord was installed next to the belt, which could be grabbed to pull in the direction of the lift to stop.

Gates guarded the manlift floor openings. Floor surfaces were not always clear and secure. On the second floor, where the incident occurred, bolt heads protruded one-half inch from the floor about 10 feet from the down shaft. On the third floor, a raised plywood floor around the shaft was spongy when walked upon.

Safety instructions on the belt and on the wall near the first-floor access shaft were in English only, and partially obscured due to wear. Although each floor was well lit, the environment was dusty and the shaft openings were unlit.

This event was unwitnessed. The Oregon OSHA investigator suggested two possible scenarios.

1. The cleaner may have tripped on the way to the access shaft down, and fallen with his head over the hole; a descending step then struck and pulled him down the shaft. A fracture on the right side of his face above the right eye indicates he may have been knocked unconscious.

2. The cleaner may have misjudged the handhold while stepping onto the downside manlift, causing him to fall.



A close-up view of a platform step on the manlift shows the metal framework on the left and emergency ladder on the right A worker at the mill demonstrates use of the manlift to ride between floors.



The victim fell through this manlift shaft opening. A platform step is shown on the lift belt, and the fixed ladder and stop cord at left.



A gate guarded the manlift floor openings. At one opening, a raised plywood floor was spongy when walked upon, reducing secure footing.

**Case Study Two**: Temporary Worker Killed when Caught in Machinery at a Bottling Plant in Washington State

On February 28, 2000, the Washington State FACE Program was notified by WISHA\*, of the death of a 24-year-old bottling plant worker in western Washington. The Washington FACE Field Investigators met with the WISHA enforcement representatives for the region in which the fatal incident occurred. The WA FACE team then traveled to the incident site with the compliance inspectors where they met with the representatives of the bottling plant involved in the incident.

The Washington FACE team also contacted the temporary employment service agency (TESA), the primary employer in this case, and met with representatives of the agency. The TESA has been in business nationally for over 50 years and has over 4,000 owned and franchised offices worldwide. The local office had been in the area for about 25 years. The total TESA office staff varied from two to five full-time and part-time employees.

The local office of the TESA does not employ a safety person to oversee their operations' health and safety processes or training, but their corporate and regional management did assign responsibilities and guidance to the local office staff. When a new employee signs with the agency, a local staff member provides a very brief, general safety orientation to the new employee. The secondary employer (the bottling plant) involved in the incident had a regular working relationship with the TESA to contract labor to work at the bottling plant and at the time, only about 5% of their employees were employed by the TESA.

The bottling plant is part of a multi-plant co-op of 10 soft drink franchise operations located throughout the northwest. The bottling plant has been in operation since 1992 and employs approximately 125 workers. The plant had both new and temporary employee orientation processes. Written orientation checklists were essentially identical for both new and temporary employees. The plant supervisors, along with the human resources manager, had the responsibility for new and temporary employee orientation. The company did not have written job descriptions that outlined the duties of each operation.

Either a plant supervisor or employee conducts "on the job" training with the new and temporary employees prior to the employee being assigned a job duty on their own. Depending on the complexity of the job and other factors, training can range from one day to one week. Once the new employee has been given the job to run on their own, there also may be a week of observation.

The facility had an accident prevention program and had conducted hazard analysis reviews on some elements of their production operations, but the analyses were limited in scope and did not address the hazard involved in the fatal incident. The plant had a safety committee that met on a monthly basis at their facility, though none of the temporary employees were on this committee.

The bottling plant was running their "plastic container" soft drink bottling process under routine conditions at the time of the incident. The victim was a 24-year-old male (temporary employee), who was working as a depalletizer line operator at the bottling plant on the date of the incident. His primary job was to manage the depalletizer machine, which introduces empty containers (20 oz. bottles on the date of the incident) into the production process, which are then filled with the soft drink product that the line was running that day. The victim had worked at the bottling plant on and off, as a temporary employee for just under two years. Most of that time he had worked as a depalletizer operator.

The TESA records showed, via signed documents, that the victim had received the agency's very basic health and safety training prior to entering employment at the bottling plant, approximately 2 years prior to the incident. Specific training related to the employee's job and the bottling plant safety process were conducted at the bottling plant. The bottling plant did not have any documentation of the victim's training, as they believe the records where purged after maintaining them for a year.

On the evening of February 26, 2000, the victim was caught in the depalletizer machine that he was operating as part of the company's soft drink processing line. Co-workers responded after they noticed the process line had stopped and saw the victim caught in the machine. A call was placed to 911 and they began CPR prior to the arrival of a local fire department's emergency medical rescue unit. The victim died of his injuries at the scene of the incident.

#### Investigation

On February 26, 2000, a Saturday evening, the victim was working the second shift at a bottling plant in western Washington State. He had reported to work at 2:30 PM, which was the normal start time for second shift.

The victim had been hired as a temporary employee via a TESA to work at the bottling plant. He had worked there on and off for about two years. His job at the time of the incident was to run the depalletizer line and he had performed that job for about a year.

A supervisor at the plant indicated that the victim was very familiar with the operation of the depalletizer. He also said that this part of the process line was one of the easier parts of the operation and required only a limited amount of training and supervision.

The depalletizer is an automated machine that transfers empty containers (bottles and cans) from stacked palettes to single-file on the processing line (see Figures 1, 2, and Photo 1). Pallets are brought by forklift from the bottling plant's container storage area and set into the initial feed mechanism of the depalletizer.

The depalletizer raises the palletized stack of bottles up from floor level to the operator's workstation level (approximately 12ft from the floor). The depalletizer mechanism then sweeps forward one layer of the palletized bottles that are packed in an 11 by 12 formation, and funnels them into a single file where a conveyor moves the bottles to the labeling and fill line.

Each layer of bottles on the pallet was separated by a piece of chipboard (tier sheet/slip sheet) which travels with the stack of bottles up the depalletizer hoist until it reaches the chipboard remover mechanism at the top. The chipboard remover has five vacuum suction cups which descend automatically onto the chipboard that covers each layer of bottles and lifts the chipboard off the bottles (Photo 2 and 3). An electronic sensor triggers this action when it senses the layer of bottles entering the chipboard remover area. The suction cups apply approximately 20 pounds of vacuum pressure to lift the chipboard approximately 2-1/2 ft off the layer of bottles. The chipboard remover then moves approximately 5 -1/2 ft to the right and

drops the chipboard onto a stack of removed chipboards. The stack is periodically taken out of the system by one of the bottling plant workers.

Once the chipboard is placed in the stack, the chipboard remover swings back to the original position to pick up the next chipboard. Simultaneously, the new layer of bottles is moved to the left by the sweeper arm onto the conveyor that sends the bottles to the labeling and filling operations. As the bottles travel along the conveyor system, an electronic sensor sends a signal to the system to raise the next layer of bottles in place for depalletizing. According to a bottling plant supervisor, this process takes approximately 20-25 seconds to cycle each layer of bottles through the system.

Sliding Plexiglas interlocked guards (doors) prevent access to the front of the chipboard remover from the operator's side of the work platform. There was a 16" x 24" opening in the guarding between the stack of bottles and the removed chipboard sheets to allow the worker access to remove the wooden stabilizing ring that is placed on top of the pallet load of bottles. Prior to the chipboard remover cycling through its process, the depalletizer operator had to reach into the opening and cut and remove two straps and a large wooden ring off the top of the pallet of empty bottles while it was in the depalletizer. This operation was done while the machine was turned off.

Once the bands are cut and the wooden ring removed, the depalletizer operator had to walk off the work platform and go down to the depalletizer control panel located on the manufacturing floor level and set the machine to the run mode. This re-activates the automatic cycle of removing the chipboard and sweeping each layer of empty plastic bottles onto the conveyor. The operator then walks back up to the operating platform and activates the system at the control panel.

On the afternoon of Saturday February 26, 2000, the victim reported to work at 2:30 PM as usual for the start of the second shift at the bottling plant. A supervisor relieved the victim at approximately 4:15 PM for his first break during the shift. Sometime between 6:00 and 6:30 PM, the supervisor noted the victim at his workstation and noticed nothing out of the ordinary. Between 7:15 PM and 7:45 PM the victim ate dinner with a co-worker in the facility break area.

The line had been running well that evening until 8:01 PM, when down time was recorded for a gap in the bottles traveling down the conveyor from the victim's work station to the fill line (i.e. the bottles weren't continuously being supplied to the processing line). At 8:05 PM the line was running again.

At 8:10 PM there was another gap in the bottles in the process line. This time the line did not resume running and the system "jam" warning light remained on. The labeler operator went to check to see why bottles were not moving. He saw a bottle jam and went to clear the line. He was about 30 feet from the depalletizer and observed the victim bent over doing something on the machine. The labeler operator went back to his work area, looked back and saw the victim caught in the chipboard remover apparatus. Then he ran up to the victim's location and found the victim face down on a piece of the chipboard in the chipboard removing apparatus. The labeler operator yelled at the victim to see if he was all right but the victim did not respond.

The labeler operator hit the manual depalletizer control button to lift the chipboard remover mechanism off of the victim but it was already at its highest point. He noticed that the victim's shirt was tangled around one of the chipboard remover's suction cups. When he realized that he was not going to be able to get the victim free of the machine, he yelled to another co-worker to call 911 and get additional help using his portable radio.

Several co-workers and the operation supervisor responded to the call for help. They found the victim jammed in the machine. One of the co-workers removed the interlocked safety doors from the front of the machine in order to get to the victim. The victim was laying face down with his right arm pressed under his body. His left arm was hanging down near the depalletizer hoist. His upper body was wedged in the machine past his waist. It appears as if the victim may have reached into the machine, past the safeguarding system. His shirt and belt were tangled in the suction cups. It was noted that the victim had a gash on his forehead and he had a blue color and no pulse. The victim was eventually removed from the depalletizer by co-workers.

Co-workers started CPR as soon as they got the victim free of the machine. The local fire department arrived within 10 minutes of being summoned and continued CPR on the victim but to no avail. The victim was pronounced dead at the scene.

The incident was unwitnessed, so no one saw the victim at the point in time when he got caught in the machine. The victim's co-workers thought that he may have been pulled into the machine while trying to reach in to align a bottle that had fallen. It was reported that sometimes a plastic bottle will fall and block the electronic eye and stop the depalletizer process until the bottle is cleared. Workers indicated that the 20 oz. bottles, that were being run, had more instability problems than other types of containers. They indicated that they often had to clear a minor jam or re-align these bottles during the depalletizer process. On average the workers indicated that they might have to deal with this 9 or 10 times a shift while working the depalletizer.

The workers all agreed that there should be no reason for anyone to get their hands or body into the system while the machine was running. The way operators were instructed to deal with a "downed" bottle was to switch the machine from automatic to manual mode at the control panel, and then open the interlocked sliding doors that are the physical machine guards for that apparatus. The interlocked doors shut the machine down. The operator can then safely reach in and take care of the fallen bottle. With the interlocked doors placed back in position, the machine would then be reactivated and placed into automatic mode and the line could proceed with the bottling process.



Photo 1. View of depalletizer from operator's platform.



Photo 2. Gap in guarding showing chipboard remover.



Photo 3. Bottles and chipboard remover.



Figure 1. Side view of depalletizing operation.



Gap in guarding

Figure 2. Plan view of depalletizing operation.

## Section Five: "Straw-man" Group Exercise

Drawing from the previous case studies or your own experiences or perhaps from stories you may have read or heard about involving near-misses or accidents involving temporary workers, see if you can paste together what went wrong and how your interventions, utilizing the tools and advice from this program may have prevented such an unfortunate occurrence. From that discussion identify specific hazards and provide specific controls to each of those hazard utilizing a hierarchy of controls.

## Section Six Debriefing:

As is proper with any form of training or education, there should be a means of evaluating the experience and assessing its effectiveness. Let us take a few moments and talk about what this program has achieved and where it can be made better. Also, let's take notes so we can look back on our notes say in the months to come and see if, at all, has this training and what we accomplished today had some longer-term effect on our workplace.

