

HIGH TURNOVER AFFECTING SAFETY AND PROFITABILITY

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RISK IDENTIFICATION AND CONTROL

- ▶ Calculating the cost of turnover
- ▶ How to reduce turnover and increase profitability
- ▶ How reducing turnover affects safety, quality and productivity

AUTO PARTS MANUFACTURING CORPORATION

- ▶ Manufacturer of motor vehicle exhaust system parts and manifolds
- ▶ May 1994, David was hired as the Chief Operating Officer
- ▶ Current president, along with several other former managers bought the company from its founders in 1988, and the officers and directors owned 100% of the capital stock.
- ▶ Sales had grown steadily from \$11.5 million in 1988 to \$23 million in 1992 to \$100 million in 1994.
- ▶ In addition to the Main factory, 110,000 square feet, they also had two other factories 120,000 square feet and 120,000 square feet.

SERIOUS CONCERNS

- ▶ Grew and prospered at the expense of the employees.
- ▶ Cut operating expenses and increase profits after the buy-out in 1988, new owners started using temporary employees as the core of the workforce.
- ▶ Main facility, about 425 employees, 350 to 400 of which were temporary workers provided by Just-In-Time Labor.
- ▶ Former union employees wages \$10-\$11 per hour with insurance.
- ▶ Temporary workers started at \$5.50 per hour with no benefits but had piece-work incentive bonuses that could increase their pay level by 25 to 50%. WC premiums were the responsibility of Just-In-Time Labor.

OBSERVATIONS

- ▶ Many temporary workers were being injured on the job and one temp service, stopped providing workers in 1990 because of the questionable safety environment.
- ▶ David reviewed the company safety manual originally developed in November 1992.
- ▶ Safety program in place
- ▶ Quality of the employees
- ▶ Employees dealing drugs, come to work in the morning and not come back in the afternoon, and employees staging accidents.

INJURIES BY TYPE FOR 1993

| Injuries | APM | Just-In-Time |
|---------------|-----|--------------|
| Amputations | 2 | 4 |
| Smashed | 6 | 13 |
| Crushed | 1 | 0 |
| Broken Bones | 1 | 5 |
| Lacerations | 23 | 29 |
| Pinches | 3 | 0 |
| Back Injuries | 2 | 3 |
| Foot Injuries | 0 | 1 |
| Eye Injuries | 5 | 11 |
| Flash Burns | 0 | 16 |
| Burns | 5 | 7 |
| Other | 15 | 62 |

DESCRIPTIONS OF SOME OF THE ACCIDENTS IN 1993

| Date | Machine | Description of Injury |
|----------|---------------------|---|
| 07/30/93 | Horizontal Bender | Employee caught in clamps injuring left first finger |
| 08/09/93 | Swedge Machine | Left hand injury to 5th finger (partial amputation) |
| 08/10/93 | Air/Hydraulic Press | Smashed two fingers on right hand |
| 09/02/93 | #4 Bender | Contusion left hand ring finger |
| 09/03/93 | Air/check machine | Sprained left hand, smashed little finger |
| 09/08/93 | Swedge Machine | Crushed end of 3 fingers on left hand |
| 09/14/93 | Swedge Machine | Smashed index and middle fingers of left hand |
| 09/15/93 | Vertical Bender | Pinched right hand middle finger |
| 09/17/93 | Vertical Bender | Right hand injured |
| 09/24/93 | Denison Press | Employee caught between tube and bottom die injuring right 5th finger |
| 09/26/93 | Horizontal Bender | Employee caught in clamps injuring index finger on left hand |
| 09/26/93 | Horizontal Bender | Broken left index finger |

OSHA RECORDABLES FOR 1993

| | Reported by APM | | Reported by Just-In-Time | | Actual Company Rates | |
|------------|-------------------|----------|--------------------------|----------|----------------------|----------|
| | LWDI ² | Incident | LWDI | Incident | LWDI | Incident |
| Recordable | 7 | 57 | 62 | 88 | 67 | 160 |
| Rate | 1.8 | 14.8 | 16.1 | 22.8 | 17.4 | 41.5 |

Formulas:

1993 Total # of APM/Just-In-Time Employees: 386

Rate = (LWDI x 200,000)/(386 x 2,000)

Rate = (Incident x 200,000)/(386 x 2,000)

Comparables:

Private Industry, 1992:

3.9 LWDI Incident Rate

8.9 OSHA Recordable Cases

All Manufacturing, 1992:

5.4 LWDI Incident Rate

12.5 OSHA Recordable Cases

EXCERPTS FROM THE APM SAFETY MANUAL

► From the Introduction:

APM is fully committed to the safety of our personnel and the maintenance of a hazard free work place by controlling the potential hazards in our work areas. To achieve this goal, a safety system consisting of the Corporate Safety Officer, and an active safety committee working within each plant has been established. True safety is more than simple programs and guidelines; true safety is a philosophy, a value and above all, a type of work life behavior. At APM we are committed to "real" work life safety and full work life satisfaction.

From General Safety Practices:

2.0 DRESS CODE

To avoid unnecessary exposure to hazards, the following minimum dress standards apply to all facilities: 2.1 Foot Protection

Working around the manufacturing operations at APM exposes you to potential abrasions, cuts, puncture wounds to the bottom of your foot or crushing injuries to your toes and upper foot. Durable, hard soled, solid toe work shoes are required because they offer the most protection. Athletic shoes are not acceptable.

2.2 Shirts

In order to protect your shoulders and upper arms from cuts and abrasions or burns from manufacturing operations, it is necessary to wear shirts with sleeves. Personnel not involved with, or exposed to, any welding operation may wear short sleeve shirts or tee shirts. Personnel involved in any welding operation must wear long welding sleeves, a welding jacket, or leathers while working. A neck flap is encouraged to prevent burns to the neck and reflection burns to the face and eyes.

Tank tops, muscle shirts, mesh shirts, loose fitting tee shirts or shirts that expose the bare midriff will not be allowed while working at APM.

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2.6 Disciplinary Actions

It is your individual responsibility to comply with all stated safety rules. Failure to follow these simple, commonsense rules will result in disciplinary actions up to and including dismissal in accordance with the rules outlined in paragraph 5 of this chapter.

EXCERPTS FROM THE APM SAFETY MANUAL

► 5.0 DISCIPLINARY ACTIONS

Safety is the number one concern at APM. Disregard for developed practices and procedures will result in specific disciplinary actions being taken against the offender. These disciplinary actions are as follows:

1. First Offense: Verbal Warning
2. Second Offense: Written Warning
3. Third Offense: Sent Home Without Pay/Dismissal

EXCERPTS FROM THE APM SAFETY MANUAL

▶ 7.0 MACHINE GUARDING POLICY

To assure operator safety while operating any piece of equipment, all machines at APM will be protected with approved guards. Under no circumstance will any one operate, or cause to be operated, any unguarded machine.

EXCERPTS FROM THE APM SAFETY MANUAL

▶ 8.0 TRAINING

General safety training will be provided to all personnel as a condition of employment. Refresher training will be provided during the monthly general safety meetings held in the break room. Schedule will be posted in break room. Training will consist of the following:

1. Contents of this safety plan
2. General safety topics
3. Seasonal safety items
4. Notes and information derived from safety magazines and publications

AFTER FURTHER RESEARCH

- ▶ David determined level of training to the temporary workers was inadequate.
- ▶ Supervisors admitted they only showed employees how to run a few parts on a machine and then watched them for 15 to 20 minutes.
- ▶ Employee interviews - most operators had either received no training or only received 15-20 minutes of "hands-on" training by a supervisor.
- ▶ Company president, "We train like crazy for a time and then we get caught in a spurt of growth and we don't have time to train again."
 - For reference, the Occupational Safety and Health Administration (OSHA) recommended 8 hours to 2 weeks of training for the metal-working industry, depending on the complexity of the equipment and the operator's experience.
- ▶ Turnover of employees was a problem.
 - Between August 1993 and June 1994, Just-In-Time Labor needed to provide the company with 1,500 temporary employees to maintain employment levels around 350 to 400.

OSHA INVOLVEMENT

- ▶ June 1994, OSHA initiated a comprehensive safety inspection of the factory as a result of the high rate of injuries occurring at the establishment.
- ▶ A health inspection occurred based on a referral regarding noise in the plant and inadequate ventilation for welders.
- ▶ The investigation was the result of a referral that OSHA received on May 26, 1994 from a doctor at St. Luke's, the local hospital.
 - The doctor was concerned about the number of injuries and stated that the hospital had been treating 2-6 people a day with injuries from APM.

OSHA INVOLVEMENT

- ▶ December 12, 1994, OSHA imposed four willful violations with \$120,000 in proposed fines.
 1. Inadequate injury and illness recordkeeping
- ▶ February 1995, OSHA imposed an additional \$1.205 million in proposed fines for willful violations in which the company allegedly intentionally ignored OSHA regulations.
- ▶ An additional \$52,500 in proposed fines for serious violations.

WILLFUL VIOLATIONS

- ▶ The willful violations addressed the company's alleged failure to:
 1. Train employees on safe operation of equipment
 2. Provide fall protection
 3. Adequately guard points of operation on numerous pieces of equipment.
 4. Provide a safe means of egress
 5. Provide an effective hearing conservation program
 6. Provide arm and hand protection
 7. Provide personal protective equipment

SERIOUS VIOLATIONS

- ▶ Serious violations included:
 1. Permitting machines to operate without proper safety guards
 2. Storing unlabeled containers on site
 3. Failing to maintain electrical equipment.

DATA REVIEW

- ▶ APM represented 7 lost workday cases with 57 recordable injuries for 1993.
- ▶ Records verification by OSHA revealed at a minimum, 67 lost workday cases with 160 recordable injuries for 1993.
- ▶ For January-June 1994, APM represented 23 lost workday cases with 45 recordable injuries.
- ▶ Records verification revealed at a minimum, 211 lost workday cases with 290 recordable injuries through December 21, 1994.
- ▶ Thus, updated information for January 1993 to December 21, 1994 showed 450 injuries including 9 amputations, 54 smashed injuries, 16 broken bones, 73 lacerations, 37 back injuries, and 56 flash burns.

David was perplexed as to how the situation could have gotten so bad and was wondering what he should do next.

DEFICIENCIES FOUND DURING THE INSPECTION

- ▶ Inadequate to no "point of operation" guarding for machines
- ▶ Inadequate to no "guarding of rotating parts and ingoing nip points" of machinery employees were operating
- ▶ No fall protection for employees exposed to falls of 13 feet four inches when climbing over boxes
- ▶ Inadequate training of machine operators
- ▶ Machinery not anchored to the floor
- ▶ No records of mechanical power press inspections
- ▶ Electrical cord found to be in disrepair
- ▶ Improper means of egress for machine operators
- ▶ Unlabeled containers
- ▶ Missing Material Safety Data Sheets (MSDS)
- ▶ Lack of quick drenching facilities
- ▶ Lack of hearing conservation program for noise levels that exceeded 85 dBA
- ▶ Lack of enforcement for hearing protection
- ▶ Lack of adequate personal protective equipment such as eye protection, welding shields, and gloves to prevent eye injuries, flash burns, burns and cuts
- ▶ Lack of hazard communication training for all employees for hazardous chemicals, MSDS and container labeling

CAUSES OF THE SITUATION

- ▶ "Incentive Work" is often not conducive to a safe workplace
- ▶ Lack of machine guarding including: Lines set up in a hurry where no time was taken to address machine guarding
- ▶ Use of old safety equipment
- ▶ Different sizes of pipe or very large pipes being used in the equipment
- ▶ Machine not considered a production machine
- ▶ Machine only used in the prototype shop where new parts were being made
- ▶ Lack of supervisor(s) monitoring or inspection
- ▶ Lack of training
- ▶ High employee turn-over Contributing to poor disciplinary practices, i.e.,
 1. Management did not enforce rules or discipline employees because turnover was already extremely high.
- ▶ Did not want to take the time to do hearing conservation programs due to turn-over.

OUTCOME

- ▶ October 1995, APM agreed to be acquired by a larger automotive supplier. The reason widely reported was "access to sorely needed capital." In a follow-up OSHA inspection in August 1996 to check the machine guarding, of the problem machines cited earlier, eleven machines had guards installed and twenty-two machines were removed from service. In 1997, under new management, the former APM factory had a total recordable rate of 9.79 and a lost work day injury and illness rate of 1.09 including a 12-month period with no lost time injuries.

TEACHING NOTE

- ▶ While David is a fictional character, how would you feel if you found yourself in a similar situation, i.e., should a well-intentioned manager go to work for a rogue company in order to improve conditions or refuse to do so?
 - What kind of commitments would David need to receive from the president in order to stay?
- ▶ Written program was not enough.
 - A written program is only one component of a safety excellence model. Excellence in safety also requires management commitment, employee involvement, and safety site leadership. All were lacking at Auto Parts Manufacturing.
- ▶ Poor safety affects your reputation.
 - They couldn't get enough workers and temp companies were refusing to provide them because the temp agency was responsible for the worker's compensation costs.
- ▶ Despite the lower wage costs, the hazardous environment created was not sustainable in the long-term. Providing a safe work place is a key to meeting strategic business goals.