

The following Fact Sheets are available on line at www.aofp.ca:

1. Becoming an Employer of Choice
2. Employee Turnover
3. Using the Turnover Calculator
4. Fostering Employee Commitment
5. Keeping your Good Employees
6. Employee Engagement
7. Essential Skills
8. Workforce Diversity
9. Managing a Family Business
10. Rewards
11. Recruiting Foreign Workers
12. Orientation
13. Employee Empowerment
14. Introducing Technology
15. Effective Appraisals

How can this Fact Sheet help me?

In order to increase product quality or output, introduce a new product, increase efficiency or reduce labour, many companies are adopting new technologies. Unfortunately new technology can lead to a period of learning that initially results in reduced output and efficiency. This period can be demoralizing and frustrating.

Proper planning and implementation can help you to make these changes with minimal disruption.

Challenges and Opportunities

What does “new technology” mean? For many firms this means transferring a host of activities to the internet. For others, it means re-engineering work processes, or automating production processes.

Technology is often seen as a way to reduce the number of workers. Although this may be the case, it is often more a matter of changing the make-up of the workforce. New technology requires new skills that workers may not have. Training takes time and money. Laying off employees who have been loyal to the organization, while hiring new ones with the needed skills, can impact employee morale.

Case Study

Campbell Company of Canada and the introduction of aseptic filling technology.

Dissatisfied with the usual bumpy progress of new capital projects, Campbell Co. decided to do it right. "We saw the need, right at the beginning of the process, to have a cross-functional team that brought together all the disciplines of the company that could contribute to the process of designing, implementing and operating the new line."

The aseptic project cross-functional team included representatives from project engineering, production, continuous improvement, maintenance, product development and human resources. Not only were all departments engaged collaboratively but they shared ownership in the outcome. It wasn't "engineering's project"; it was the "team's project".

Members of the team visited both Australia and France, where the technology was already in use. They learned as much as they could about what they would need to succeed in Toronto. One of the key findings was the higher mechanical skill level that would be required. Workers on the aseptic line would need competency in math and mechanics. Education and training initiatives were implemented.

Today, ongoing education and training continues. As new lines are installed, the company uses a total productive manufacturing (TPM) program as part of an overall quality program. TPM reinforces worker training and education with *One-Point Lessons*, quick tips that are printed on a single page. These tip sheets are positioned at various points throughout the line. Examples include how to conduct a changeover or setup, what to wear and where the nip points are on the equipment.

Workers can quickly flip through a One-Point Lesson book to find answers to typical questions about the operation.

Solutions

New technology cannot be introduced efficiently without long-term planning and forethought. A business leader with foresight and a long range plan (5 -10 years) can ensure that technology is implemented with minimum disruption. Current employees can be trained and prepared. New employees with the required skills and the potential for future development can be hired and assimilated.

The following steps are recommended:

1. Gather intelligence from facilities that are already using the same technology.
2. Determine the essential skills that workers will require to function in the new environment and hire or promote employees who possess these skills.
3. Train employees who have the desire and ability to learn the new skills.
4. If new equipment is involved, be sure it meets the requirements of personal safety and food safety.
5. Develop a preventive maintenance program for the equipment.
6. Train maintenance employees in the proper maintenance of equipment.
7. Develop training manuals on how to run and trouble-shoot a piece of equipment.
8. Develop sanitation procedures and train sanitation employees.
9. Make any changes to the HACCP plan necessitated by the change.

ADVANTAGES OF BEST PRACTICES

- More qualified job applicants
- Better trained and informed employees
 - Better health and safety practices
- More engaged and productive employees
 - Fewer line interruptions
- Fewer product quality problems
- Easier implementation of new technology
 - Lower absenteeism and employee turnover
 - Higher sales per employee
- Higher market value to book value

Things to look for in new equipment from a personal safety perspective:

- Does equipment meet or exceed all applicable provincial health and safety requirements and industry standards for use in Ontario?
- What personal protective equipment (hearing protection, gloves, eye protection, etc.) is required for the safe use of new equipment?
- Are all belts, gears, chains, couplings, associated shafting and counterweights completely enclosed?
- Are all pinching, shearing, in-running and tangling hazards guarded to prevent any person from being caught by such points?
- Are controls and emergency stops in accordance with the Ontario Health and Safety Act?
- Are all control panels and disconnects equipped with the necessary devices to accept locks and multiple lock-out devices. Will lock-out prevent any unexpected movement?
- Does the new process or equipment create any new hazardous condition?
- Identify all maintenance and cleaning chemicals required. Are any hazardous chemicals needed? If so, ensure you have MSDS available, proper storage and training. Are chemicals approved for use in a food facility? Do you require additional eyebaths or showers?
- Does equipment pose any fire, toxic vapours or explosion hazard?
- Does equipment have a confined space?
- Is the equipment well-designed from an ergonomic standpoint (bending, repetitive strain, etc.)?

References

Extract from Reassessment Checklist ©
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Ontario Health and Safety Act &
Regulations

The following Fact Sheet may be helpful:

6. Employee Engagement

This resource is available on line at
www.aofp.ca under Workforce
Development.

Things to look for in new equipment from a food safety perspective:

- Equipment allows hygienic compatibility with utilities (electrical hydraulics, steam, air, water).
- Equipment and utilities are installed so that nothing can drip or fall into product.
- Electronic and electrical interfaces are fully sealed to prevent the entry of food or water.
- Vessels are enclosed or covered with lids where appropriate.
- Lights are protected.
- Equipment is self-draining and does not cause pooling water, or equipment is connected to drains.
- Hollow areas are eliminated or fully sealed.
- Equipment capacity meets needs of process.
- Where there are food contact surfaces,
 - surfaces are non-corrosive & non-absorbent.
 - surfaces are smooth & free from pitting, cracks & crevices.
 - surfaces are non-toxic.
 - materials are compatible with your product.
 - materials meet a standard such as USDA, FDA, 3A, or are otherwise approved for food contact.
- Equipment or new process areas are exhausted to the outside if needed.
- Machinery is installed so that all sides are accessible for cleaning and sanitizing.

How do I start?

1. Create a long-term plan. Where do you want to take the company in the next year? In the next five years? In the next ten years?
2. List the equipment and technology that you will need to carry out your plan.
3. What worker skills will you need to make this technology work?
4. Form a team of suitable employees to determine requirements for the introduction of technology in the coming year.