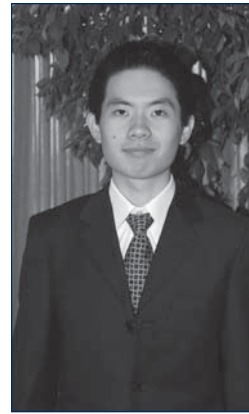


Quality Chef Foods, a division of H.J. Heinz Company L.P.

COMPANY BACKGROUND



Quality Chef Foods (QCF), with about 200 employees, is a division of H. J. Heinz Company L.P. It is a producer of soups, sauces, and selected entrees for commercial clients. Heinz has four similar soup manufacturing plants in the United States and maintains approximately 50 percent of the market share in the “Frozen Concentrate and Frozen Ready to Serve” category nationwide.



WEN LIN
INDUSTRIAL ENGINEERING
IOWA STATE UNIVERSITY

PROJECT BACKGROUND

Quality Chef Foods (QCF) is dedicated to safety milestones both in the factory and in the community, achieving a record of 21 months with no recordable injuries. Currently the factory uses 50,000 lbs. of anhydrous ammonia annually as refrigerant. Because of the toxic nature of ammonia, a Process Safety Management (PSM) and Risk Management Plan (RMP) must be developed and maintained to reduce the risk of an ammonia release accident.

INCENTIVES TO CHANGE

Management at QCF was looking for a systematic and effective way of implementing the PSM and RMP requirements. There were opportunities for improving the previous compliance work procedures; hence QCF sought an intern from DNR with an open mind to:

1. Review the current compliance work procedures
2. Redesign a more effective way for conducting PSM/RMP compliance work
3. Investigate other measures to reduce the risk of ammonia release

RESULTS

New PSM/RMP Compliance Procedure

Most of the safety compliance challenges come from the PSM program. With 14 elements ranging from Process Hazard Analysis to Trade Secrets, PSM is a complex body of documents, records and rules. The previous PSM compliance procedures were cumbersome and sometimes led to contradictory schedules. Safety personnel were often sidetracked and productivity hindered. To solve this problem, the “status quo” of the previous compliance procedures was analyzed and the objectives of the new procedures determined. A two-dimensional “Divide and Conquer” technique was employed: Divide the 14 elements and assign them to each group of PSM team members according to their expertise, and divide the time each week into three basic parts.

In this way a detailed compliance procedure was developed achieving:

- Standardized compliance work flow
- Multiplied work efficiency
- Clarified responsibility
- Increased productivity
- Reduced risk of ammonia release accidents

This proposal has been accepted by management. An estimate of instant savings from increased productivity sums up to \$14,575 annually. In addition, the new procedure can save a potential \$51,125 in risk reduction.



PSM Management Software Alternatives

PSM/RMP management software on the market was analyzed for efficiency. After testing the demos and interacting with sales representatives, a report on the pros and cons of these programs was compiled and eventually a side-by-side comparison chart was created.

The feasibility of upgrading the management software was discussed. If implemented, this would further facilitate the work of safety personnel and reduce the risk of ammonia release.

Document Tracking System

A solution of using a barcode system to manage documents was suggested. Many benefits can be attained at the relatively low cost of several barcode scanners and an interface program with a database. Time saved in finding the misplaced documents could amount to more than \$4,000 per year.

Project	Annual Cost Savings	Environmental Results	Status
NEW PSM/RMP COMPLIANCE PROCEDURE	\$14,575 + POTENTIAL \$51,125	REDUCED RISK OF AMMONIA RELEASE	IN PROGRESS
PSM MANAGEMENT SOFTWARE ALTERNATIVES	\$6,996	REDUCED RISK OF AMMONIA RELEASE	RECOMMENDED
DOCUMENT TRACKING SYSTEM	\$4,664	REDUCED RISK OF AMMONIA RELEASE	IN PROGRESS
THIRD PARTY PSM COMPLIANCE AUDIT	\$4,000 ONE TIME COST SAVINGS	REDUCED RISK OF AMMONIA RELEASE	IMPLEMENTED