ISO 9000-2000 (combination of ISO 9000 and TQM)

REFERENCES

A.S. Szabo: Food physics as an important part of food science and applied physics. Int. Agrophysics, 13, 407-409, 1999.
A.S. Szabo: Trends of development in food physics. J. Food Physics, 101-104, 2000/2003.
A.S. Szabo, J. Simon, P. Laszlo: The growing importance of aspects of food safety and food physics in the industrial food processing. J. Food Phys., 93-96, 2004/2005.
A.S. Szabo, P. Laszlo, J. Simon: The growing importance of aspects of food safety and food physics in the industrial food production. J. Food Phys., 6-8, 2006.
L.O. Figura, A.A. Teixeira: Food physics. Physical properties, measurement and applications. Springer Verlag, 2007, p. 550.

THE MANAGEMENT OF RISKS IN THE EDIBLE OILS INDUSTRY

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ABSTRACT

Risk Management System is an important part of the developing and executing of a business plan in the food industry. Effective implementation of Risk Management System promotes best practice concepts at the corporate/strategic level as well as a improving of technological operation. A proactive approach of the Risk Management System should form a core part of the decision-making process at all levels within an productive organization.
The European legislation in the field of industrial risks management identify two types of risk:
- the chronic risk (integrated control and prevention of pollution).
- the accidental risk: fires, explosions, noise, air pollution, water, waste pollution resulting from the radioactivity.

The objective of this paper research is to define a Risk Management System in the edible oils industry and to identify the axes of reforms to conduct at the prevention of the industrial risks.

INTRODUCTION

Assessing and managing environmental risk in productive industrial fields [3] has been considered to some extent by Richards (1997) and Turner et al (1994). While Richards examined the commercial investment perspectives of risk, especially contamination Turner's work was from the perspective of using environmental management systems as a means of reducing exposure to the environmental risk.

The industrial risk are the followings[1]:

- industrial chronic risk (all forms of pollution which present a citizens health impact and on the environment) ;
- accidental industrial risk resulting from the presence of products or risks processes which might cause an accident involving serious immediate consequences for the staff, the citizen and the environment.

The European legislation deals with these two types of risk as a distinct:

- the chronic risk (integrated control and prevention of pollution).
- the accidental risk (the control of dangerous: fires, explosions, noise, air pollution, water, waste pollution resulting from the radioactivity[2].

The facilities of modest capacity are regarded as having low risks and they must meet the general technical requirements. The facilities of capacity more important are considered of the high risk and are therefore are the subject to the legal institutional authorization regime[4].

The Risk Management System[5,6] sets conditions for development and exploitation of the installation, analysis and measurement of the operation, the methods and means of intervention in case of accident, the emergency measures to adopt and obligations of the operator in terms of information and warning of the personnel.

RESULTS AND DISCUSSION

The general issue of the Industrial Risk Management are the followings:

- Industrial Hygiene;
- Air Sampling;
- Indoor Air Quality;
- Ergonomics;
- Chemical Safety;
- General Safety;

- Fire Safety ;
- Health Care Safety;
- Hazardous Waste Compliance ;
- Environmental Compliance;
- Environmental Audits.

1. Conventional Testing Methods
- Radiographic Examination (RT),X-Ray or Gammagraphic Testing;
- Manual Ultrasonic Testing (UT)(Pulse-echo Method);
- Surface Examination using Magnetic or Penetrate Testing.
2. Special Examinations
- Eddy Current Testing;
- Guided Wave Examination;
- Positive Material Identification(PMI), Alloy Analysis;
- Time of Flight Diffraction Examination (ToFD; Mechanized Ultrasonic Testing);
- Corroscan (Mechanized Pulseecho Examination);
- Infrared Thermograph (tracing of heat loss);
- Magnetic Flux Leakage (MFL) Tank Floor Examinations;
- Endoscopy, Videoscopy;
- On-site Hardness Measurements;
- Hydrogen Induced Cracking Examination (HIC);
- Digital radiography as on stream technique to determine remaining wall thickness;
- Hot Hydrogen Attack Examination;
- Automatic Ultrasonic Testing (AUT) of Pipeline Girth Welds.

The policy of controlling industrial risk is related with the following fields:
1. Improving the management of urbanization in the area of industries at risk ;
2. the analyses and critical review of the industrial risks studies in the general industrial field;
3. consistent risks study report ;
4. implementation of the internal Management system of security ,including the Management system for the intervention in case of accident and Professional Employees management for the risks prevention ;
5. Implementation of the periodically internal &independent audit ;
6. The feed-back implementation and information dissemination, creation of a data banks easily accessible and efficient utilizable;
7. Civil and penal responsibility of the industrial sites .

The principal elements of Risk Management System:

1. a better identification and reduction of industrial risk to the source;
2. improving the role of the human factor and particularly of employees in the prevention of accidents,
1. safety design of facilities, an important part of their maintenance procedure;
2. create a scale of risk to the assessment of industrial accidents on the whole of classified installations ;
3. lead a reflection on the necessity of products "dangerous" and the manufacturing process "at risk" ;
4. reconsider the storage conditions ;
5. develop technologies to the lower risks ;
6. develop the establishment of management systems of security and the audits of internal security.
7. Public Information: establish a permanent dialog between industrial, governments and citizens, inform the citizen to assure it's own safety, regular days "Open Doors" activities, develop a genuine culture of risk, popularize the technical information of industrial risk, popularize the studies of risks, frequently updating information brochures.

Conclusions

The Risk Management System included three parts:

1. Improving the management of urbanization in the area of industries at risk ;
2. Industrial Risks Analyses System implementation in each industrial plant;
3. Management system of security modern and efficient.

REFERENCES

1. Beck E., Approche multi-risques en milieu urbain, Thèse de doctorat, – Université Louis Pasteur Strasbourg I, 283 p. 2006: http://eprints-scd-ulp.u-strasbg.fr:8080/643
2. Chetouani, N. Mouhab, J.M. Cosmao, l. Estel, Test statistique sur les innovations normalisées pour la détection de défauts d'équipements : application à la surveillance d'un réacteur chimique, Entropie ,233, pp.3-10, 2001

3. Paul R. Kleindorfer Industrial Ecology and Risk Analysis1,Risk Management and Decision Processes Center The Wharton School, University of Pennsylvania,2000
4. Michael Ross Jayne MA FRICS ,The management of environmental risk and the property management of light industrial estates, University of Staffordshire, Stoke on Trent, England ,1998
5. Schmoldt, Expert Systems and the Environment, Encyclopedia of Environement Science ,1999: http://www.srs4702.forprod.vt.edu/pubsubj/pdf/9906.pdf)
6. ***United Nations Environment Programme, (1997), The Environmental Management of Industrial Estates, United Nations Environment Program, Industry and Environment, Paris.

ELECTRICAL IMPEDANCE SPECTROSCOPY AS A POSSIBLE NONDESTRUCTIVE METHOD IN QUALITY ASSESSMENT

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ABSTRACT

The magnitude and phase angle of impedance were measured with a HP 4284A LCR meter on Gala apples purchased on the local market. Two ECG electrodes (Fiab Spa) were applied on apple with skin and without skin at several places on the apple surface along the equatorial. The good electrical contact between the electrodes and apple was realized with a conducting gel. The impedance spectra were determined in frequency range from 10 Hz till 1 MHz at 1 V measuring voltage. Each measured spectrum after an open and short correction was approached by a circuit model consisting of a serial connection of impedance of apple skin and impedance of intracellular and extracellular apple flesh. The complex non-linear least squares method was applied with Mathlab program. This approaching method can allow getting the impedance of apple flesh under the skin without peeling.