

Laboratory Safety Organization

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Introduction

Today is clear all technical progress and development in life science or industries and economy in large extents are relying on laboratories researches in the entire world.

Laboratory as the place for experiments new processes and phenomena always face with unknown dangerous experiments and in many cases unknown risks and hazards.

Regardless of nature of the laboratories, risk is the inescapable subject of the laboratories activities.

Developing laboratories with Using of various modern technologies, chemical reagents, biological agents make great contribution to progress and development in science and technology but it has sever and serious hazard consequences in some case which may have been arisen acute (immediately), chronic (middle or long term) hazards which have been shown in the long term and very late.

Accident prevention in the laboratories states as a laboratory safety and protection has been drawn serious attention in the developed and developing countries.

Laboratory safety is the general term and sustainable safety as comprehensive program need practical measures and strategy.

Laboratory safety organization

Safety needs to the policy and organization which can manage safety and protection programs depend on laboratory characteristics and their performances laboratory safety needs to specific organization such as the scope determination and responsibility definition.

Laboratory safety scope includes laboratory field activities definition, protection personnel, students and scientists against risks and hazards policy, creating necessary abilities and preparedness skills with comprehensive risk analysis, evaluation and management with prediction training needs for safe place and working environment, providing systematic and personal protective equipments (PPE) offer safety guidelines and rules.

Environment health and safety is the other serious safety laboratory organization responsibly in order to carry out of environment protection from laboratory hazard waste pollutions. Laboratory Safety is the specialized issue needs to the wide range on knowledge, experiences and human resources can be managed by the laboratory safety organization.

Below Items as Integrating safety issues must be put in the laboratory safety organization:

Scope, purposes, safety committee, risk assessment and analyzing, material safety data sheet preparation (MSDS), safety responsible and responsibilities, safety rules and guidelines, safety documentations, Training, biosafety and safety officer, health and medical surveillance, first aids and rescue, inspection and accident investigation, hazard waste disposal, emergency respond feedback and revising are items must be following under organizational performance.

Scope determination and definition

Scope of laboratory is field of laboratory activities and it will be very important for safety and protection policy decision.

Purpose of laboratory safety is protection of personnel, Environment and laboratory facility and utility.

Safety committee is the decision making center for safety and protection program consist of lab manager (safety manager), safety and biosafety officer, lab experts, Fire, electrical experts, lab supervisors, medical and safety consultant,...), risk assessment and documentation and prediction PPE, training courses, inspection and accident investigation achievement are main safety committee responsibility.

Safety and biosafety officer, specialist person who has safety knowledge and skills about laboratory activity process, potential (biological and physical, mechanical, radiation) risks and hazards with respond and rescue skill and ability management.

Safety training and repeating in regular periodic for laboratory employee and new coming worker, students must be follow as imperative base in laboratory no person must be permitted for working without pass training course and refreshing course.

Laboratory safety guidelines and rules must be prepare according to risk assessment and analysis and will be recognizing as official standard safety and must respected and follow by all laboratory practitioners and employees .

Hazard waste disposal must be organized according to material safety data sheet (MSDS) recommendations and all hazard neutralized in order to environment pollutions.

Health and medical surveillance regular medical checking, vaccination and immunization are important pace in laboratory safety organization.

Sustainable laboratory safety and preparedness depend on organizational institution in the otherwise, with variation in laboratory experiments and activities, maximizing protection coverage may be ignored and failed.

Inspection and investigation of any laboratory accident and reporting any fail in safety organization is one of the most important key for keeping safety organization effectiveness. Safety laboratory organization must be keeping its preparedness in high level with holding regular exercises and reviewing its safety protocol effective and fulfilling any gaps.