

## INTRODUCTION: OCCUPATIONAL HEALTH AND SAFETY

### HISTORY

The National Cancer Institute (NCI) established the NCI-Frederick Cancer Research and Development Center (NCI-FCRDC) in 1972 following the transfer to NCI of a portion of the land and buildings formerly belonging to the United States Army, Fort Detrick, in Frederick, Maryland. From the beginning, NCI-FCRDC's mission has been to support research for NCI, and, later, additional programs overseen by the National Institutes of Health (NIH). Fort Detrick was chosen as the site for this Center in part because of its long history of dealing with hazardous biological agents under strict containment. This commitment to safety served as the starting point from which both the present Safety and Environmental Protection Program (SEPP) and Occupational Health Services (OHS) have evolved. The guiding principle underlying all activities of the NCI-FCRDC is to preserve and protect the health and safety of all employees and the surrounding community. The prevention and control of occupational and environmental hazards are key components in the occupational health and safety program designed to achieve this goal. This Health, Safety and Environmental Compliance Program Manual is a compilation of policies and programs established by the NCI-FCRDC to aid in achieving this objective.

Additional factors during the evolution of the NCI-FCRDC which have had an impact on the organization, development and implementation of the SEPP include the use of contractors, increasing numbers of employees, and expanding research activities. Since 1972, the NCI-FCRDC has grown enormously and is currently staffed with more than 2000 personnel, both government and contractor. Employees are engaged in a wide variety of research projects that deal primarily with cancer and HIV research. The NCI-FCRDC has also grown in complexity, and now includes NCI staff, staff from other NIH institutes, and employees from each of four contractors responsible for operating and/or supporting various aspects of the research being conducted at the NCI-FCRDC. The NCI-FCRDC community is diverse, and possesses wide ranges in levels of education and training, countries of origin, ages, and occupational skills. Additionally, the range of activities at the NCI-FCRDC now spans virtually the entire spectrum of modern biomedical technology, constantly evolving to reflect new methods and procedures as they are developed. Collectively, these issues affect how SEPP and OHS provide safety, health and environmental services.

In order for a safety program to succeed at the NCI-FCRDC, **one set of policies and procedures must apply to everyone, including visitors, at the Center.** With the input of major elements at NCI-FCRDC, SEPP and OHS have prepared a Health, Safety and Environmental Compliance Program Manual that applies to each individual who visits or works here and each functional unit, whether it is composed of government or contractor

personnel. It is only with the participation of all programs ongoing at NCI-FCRDC, together with the cooperation and vigilance of both supervisors and staff, that a successful safety program can be maintained at the NCI-FCRDC.

## **HAZARDS TO SAFETY AND OCCUPATIONAL HEALTH AT NCI-FCRDC**

The size as well as the complex nature of research conducted at NCI-FCRDC may pose potential health and safety hazards. Examples include:

- Biological - viruses, bacteria, recombinant DNA, etc.
- Chemical - carcinogens, toxins, acids, solvents, oxygen deficiencies, etc.
- Radiation - isotopes, x-rays, lasers, magnetic fields, etc.
- Physical - cryogenics, confined space, eye hazards, noise, etc.

Health, safety and environmental compliance programs at NCI-FCRDC must identify and control these potential health and safety hazards. In addition, the SEPP must ensure the NCI-FCRDC meets all local, state, and federal regulations regarding environmental compliance, radiation protection, and health and safety. All NCI-FCRDC personnel have a role in ensuring the success of the NCI-FCRDC health, safety and environmental compliance programs by careful attention to the policies and procedures in this manual. A cooperative effort towards maintaining a safe environment will ensure a level of safety that all employees at NCI-FCRDC deserve.

## **RESPONSIBILITY FOR SAFETY AND HEALTH**

The success of the health, safety and environmental compliance programs at NCI-FCRDC depends upon close cooperation among at least three different components: individual workers, supervisors, managers, and Safety and Environmental Protection Program (SEPP)/Occupational Health Services (OHS) staff. Although more detailed accounts of the responsibilities of each of these components are described elsewhere in this manual, a general description of their roles can be summarized as follows:

- A. Safety and Environmental Protection Program (SEPP)/Occupational Health Services (OHS)

SEPP's mission is to provide services to the NCI-FCRDC that promote a safe laboratory and research support environment. Some of the responsibilities of the SEPP include establishing the guidelines for all relevant issues of environmental

compliance and safety; educating staff concerning safety issues, policies, and procedures; and for monitoring compliance at all levels and initiating corrective actions. OHS provides comprehensive occupational health services in collaboration with SEPP.

Recognizing that NCI-FCRDC is an evolving biomedical research facility, SEPP and OHS staff will work together with researchers and management to establish policies and procedures that will ensure that health and safety hazards are identified and controlled and will enable scientific research to flourish. Emphasis will be placed on educating those at risk, establishing procedures to control safety hazards, and initiating an inspection program to critically review the implementation and development of the safety policies and procedures of the NCI-FCRDC. The Operations and Technical Support (OTS) contractor at the NCI-FCRDC has responsibility for providing safety and environmental compliance services and occupational health services to all employees at NCI-FCRDC, including both government and contractor personnel. The services provided by SEPP and OHS will be proactive, professional, and responsive to the needs of NCI-FCRDC.

#### B. Managers/Supervisors

Of all the elements that must contribute to a strong safety program, it is the supervisory staff who hold the key to maintaining a safe work environment. Supervisors have both the experience and the training to identify the potential hazards in their workplaces and understand the importance of following safe procedures at the operational level. They must also be familiar with all relevant safety procedures and protocols as well as the level of experience of each of their staff. Supervisors are a critical element in the establishment of a safe ?climate? among their staff. They must ensure that the policies and procedures contained in this manual are fully implemented and enforced and encourage employees to participate in the identification, assessment, and control of potential safety hazards. It is incumbent upon supervisors to ensure and, in many cases, to document that their staff are properly trained, properly equipped, and follow safe procedures in the performance of their duties.

#### C. Research and Support Personnel

Exposure to potentially hazardous situations or substances may occur when staff perform laboratory or support activities. Employees may vary greatly in their experience and understanding of hazards and safety procedures. Although supervisors bear a major share of responsibility for the safety of their staff, individuals are responsible for performing their work activities in accordance with established policies and procedures and training received. An additional responsibility of individual scientists and support staff, including those just beginning work, is to ask questions of their supervisors or of SEPP and OHS staff and to seek appropriate guidance whenever unknown or potentially hazardous

conditions arise.

This manual is intended to contain information required to establish a system within which all activities at NCI-FCRDC will be performed in a safe and efficient manner. Furthermore, it is a "living" document which will continue to evolve and reflect changes in our work and regulatory environments. Should questions or suggestions arise concerning the health, safety or environmental compliance of any activity at this facility, do not hesitate to call the SEPP office at x1451 to speak to the responsible safety officer.

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