PROJECT NAME: Environmental Permits and Programs for a New Laboratory

PROJECT DESCRIPTION:

The Client is in the business of conducting applied research into discovering cancer inhibiting drugs and determining the drugs mechanism of activity. The company anticipated consolidating its research and administrative offices at an Aurora, Colorado facility around the first of February, 1995. The company intends to retain a consultant and contracted with EIS for environmental, health, and safety (ES&H) compliance services. EIS assisted the client with permitting/licensing, creating guidelines, compliance programs and identifying other environmental regulations that might affect the laboratory in the following areas: Radioactive Materials, Hazardous Waste, Clean Water Act Compliance, Infectious Waste, and Chemical Hygiene Plan.

Radioactive Materials: Any person receiving, possessing, or using radioactive material must have a license (Colorado Rules and Regulations Pertaining to Radioactive Control, RH 3.1). There are two types of licenses, General and Specific. To qualify for a general permit, the laboratory must not possess at any one time more than 15 pounds of source material, in addition specific quantities of other radioisotopes are allowed, including carbon-14 and tritium (RH 3.6.9). One of the requirements for the general licenses holder is to complete form OR-RH-27, "Certificate-*In Vitro* Testing with Radioactive Materials under General License." The general license specifically excludes testing on animals or humans. To obtain a general license for the laboratory EIS created a Radiation Safety and Radioactive Waste Management Plan. This plan provided guidelines and actions to be taken by employees working with radioactive materials. The plan covers many subjects including the following: Safety Regulation, Waste Disposal, Radioactive Materials Used, Storage, Use of Radiation Monitors, Emergency Procedures, and Radiation Exposure Limits. In addition to the plan, Form OR-RH-27, was completed; the license was granted.

Hazardous Waste: Generators of hazardous waste must obtain a Part A permit, correctly accumulate, store and dispose of their hazardous waste per 40 CFR Parts 260-262 and Colorado Hazardous Waste Regulation 6 CCR 1007-3. EIS assisted the client in obtaining a permit, setting up accumulation and storage areas, and producing standard operating procedures for the waste management program.

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EIS created a Hazardous Waste Management Plan that provides the compliance strategy for the new laboratory in the following areas: Identifying Hazardous Waste, Training Program, Storage, Profiling, Transportation and Disposal, and Recordkeeping.

Clean Water Act Compliance: EIS researched federal, state, and local regulations to find what would be required of the new laboratory. The laboratory is subject to local laws and was made aware of the discharge requirements.

Infectious Waste: The rules concerning the generation, accumulation, and disposal of infectious waste are contained in Colorado Regulations CCR-1007-2, the regulation mandates an employer managed program. EIS completed a general infectious waste management and disposal program for the laboratory. Within the Standard Operating Procedures of the Chemical Hygiene Plan, guidelines are presented for identification, treatment, storage, and disposal of infectious waste.

Chemical Hygiene Plan: The following outlines the necessary components of a Laboratory Chemical Hygiene Plan (CHP). A CHP is required by OSHA for all laboratories (29 CFR 1910.1450).

A. General Principles
B. Responsibilities
C. The Laboratory Facility
D. Component of the Chemical Hygiene Plan
    1. Basic rules and procedures
    2. Chemical procurement, distribution, and storage
    3. Environmental monitoring
    4. Housekeeping, maintenance, and inspections
    5. Medical program
    6. Personal protective apparel and equipment
    7. Records
    8. Signs and labels
    9. Spills and accidents
    10. Training and information
    11. Waste Disposal
E. General Procedures for Working with Chemicals
F. Safety Recommendations
G. Material Safety Data Sheets

The client needed to establish a written Chemical Hygiene Plan for the new laboratory. A plan was written that covered the required subjects.