

NEW JERSEY INSTITUTE OF TECHNOLOGY University Heights, Newark, New Jersey 07102

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APPENDIX A: Abbreviations and Definitions

American National Standard Institute (ANSI) is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

Carcinogen or "Select Carcinogen" means any substance which meets at least one of the following criteria:

- a. Regulated by OSHA as a carcinogen; or
- b. Listed under the category, "known to be carcinogens," in the Annual Rep ort on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or
- c. Listed under Group I ("carcinogenic to humans") by the International Agency for Research on Cancer Monographs (IARC) (latest edition); or
- d. Listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals.

Center for Disease Control and Prevention (CDC) is the United States' health protection agency, working to protect America from health and safety threats, both foreign and domestic. The CDC also regulates the possession and use of Select Agents and Toxins along with the United States Department of Agriculture (USDA).

Chemical Hygiene Guide (CHG) provides a general overview of hazardous chemicals and their associated health and safety risk; safety precautions to control exposure; and the generic framework for the development and implementation of a laboratory-specific Chemical Hygiene Plan.

Chemical Hygiene Officer (CHO) is personnel responsible for implementing the CHP the laboratory or shop. This person shall be the PI/Faculty responsible for the lab unless s/he has identified a designee to act on their behalf.

Chemical Hygiene Plan (CHP) is a written program stating the policies, procedures and responsibilities that protect workers from the health hazards associated with the hazardous chemicals used in the workplace. Since NJIT has various departments and facilities with unique research and instructional activities, written laboratory-specific SOPs are required in accordance with federal and state regulations to address the specific hazards within each laboratory or shop. The CHG does not fulfill regulatory requirements of or become a CHP until the written laboratory-specific SOPs are added to it.

Cryogenic relates to the production or application of very low temperatures. They can cause frostbite and/or asphyxiation. They can be present in gaseous or liquid forms. Some examples are nitrogen, helium, and hydrogen. Nitrous oxide and carbon dioxide are typically included in this category because they are extremely cold, but lack similar properties. Carbon dioxide can be present in a solid state as dry ice.

DEHS – Director of Environmental Health and Safety

Designated Area means an area which may be used for work with "select carcinogens," reproductive toxins or substances which have a high degree of acute toxicity. A designated area may be the entire laboratory, an area of a laboratory, or a device such as a laboratory fume hood.

DOLWD – Department of Labor and Workforce Development / Division of Public Safety and Occupational Safety and Health enforces laws and regulations that provide for safe and healthful working conditions throughout New Jersey's public and private sector.

Don – Put on (an item of clothing or personal protective equipment)

Environmental Health and Safety Department (EHS) supports the overall mission and goals of NJIT by developing, implementing, and administering comprehensive environmental health and safety services, policies, and procedures that protect public health, prevent personal injury and maintain regulatory compliance.

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Globally Harmonized System (GHS) addresses classification of chemicals by types of hazard and proposes harmonized hazard communication elements, including labels and safety data sheets.

Hazardous Chemical means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees.

Health Hazard includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.

International Agency for Research on Cancer (IARC) is an intergovernmental agency forming part of the World Health Organization of the United Nations that conducts and coordinates research into the causes of cancer.

Laboratory Personnel or Workers refer to employees, students and other persons conducting research and clinical activities in NJIT Laboratories, regardless of NJIT employment status.

Medical Consultation is a consultation which takes place between an employee and a licensed healthcare provider for the purpose of determining what medical examinations or procedures, if any, are appropriate in cases where a significant exposure to a hazardous chemical may have taken place. **Minimum NJIT Laboratory Safety Standard** - Mandatory Protocols and Procedures set forth in this Chemical Hygiene Guide and denoted by directive phrases such as "shall", "must", "is prohibited", "is required", and "is not permitted".

National Institutes of Health (NIH) is a part of the U.S. Department of Health and Human Services and the nation's medical research agency that governs and establishes detail safety practices and containment procedures for basic and clinical research involving recombinant or synthetic nucleic acid molecules.

New Jersey Department of Environmental Protection (NJDEP) is responsible for managing the state's natural resources and addressing issues related to pollution including oversight of waste management.

NJIT - New Jersey Institute of Technology

National Select Agent Registry (NSAR) requires registration for possession, use, and transfer of the listed Select Agents as well as the facility and the owner of the Select Agents to meet biosafety requirements and complete a security risk assessment.

National Toxicology Program (NTP) is program run by the United States Department of Health and Human Services to coordinate, evaluate, and report on toxicology within public agencies and provide the scientific basis for programs, activities, and policies that lead to the prevention of disease.

Occupational Safety and Health Administration (OSHA) assures safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

Particularly Hazardous Substances (PHS) are any compound which meets the criteria of select carcinogen, mutagen, reproductive toxin, acutely toxic, and chemicals whose toxic properties are unknown.

Pathogens are a bacterium, virus, or other microorganism that can cause disease.

PEOSH - Public Employees Occupational Safety and Health develops and enforces occupational health standards for public employees, and encourages employers and employees to improve their working environment.

Personal Protective Equipment (PPE) is protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.

Principal Investigator - NJIT faculty member or staff with assigned research or teaching laboratory or shop space.

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Reproductive Toxins - Chemicals which affect the reproductive capabilities of males or females including chromosomal damage (mutations) and effects on fetuses (teratogenesis). Keywords that commonly designate a reproductive toxin are congenital malformation, mutagenic, fetal toxicity, maternal effects, fetal death, paternal effects, fatal effects to the newborn, fertility, neoplastic, infertility, and teratogenic

Right to Know (RTK) - New Jersey Worker and Community Right to Know Act requires public and private employers to provide information about hazardous substances at their workplaces.

Restricted Chemicals are chemicals restricted by use and/or quantities as use of the substance poses an unacceptable risk to human health or the environment.

Satellite Accumulation Area (SAA) is an area at or near any point of generation where hazardous waste initially accumulates and that is under the control of the operator generating the waste. When accumulation limits (55 gallons of hazardous waste or 1 quart of acutely hazardous waste) have been reached, the excess waste must be removed from the area within 3 days.

Safety data sheet (SDS), formerly material safety data sheet, is a document that lists information relating to occupational safety and health for the use of various substances and products.

Select Agents and Toxins are biological agents and toxins of biological origins that have been determined to have the potential to pose a severe threat to both human and animal health, to plant health, or to animal and plant products.

Standard Operating Procedure (SOP) consists of work practices, personal protective equipment or protective devices as well as engineering controls which are employed to minimize contact with a hazardous material. The selection of the most effective set depends as much on the conditions of use of the material and the physical environment, as it does on the innate toxicological properties of the chemical.

Unattended Laboratory Operation: A laboratory procedure or operation during which there is no person present who is knowledgeable regarding the operation and emergency shutdown procedures.

Ultraviolet (UV) radiation designates a band of the electromagnetic spectrum with wavelength from 10 nm to 400 nm, shorter than that of visible light but longer than X-rays. Eye protection and clothing must be worn to the cover the skin to prevent photokeratitis and serious sunburn.

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