

REPRODUCTIVE HEALTH PROTECTION PROGRAM

Summary

This program provides assistance to staff, and supervisors when dealing with questions related to reproductive health and work at the University. These guidelines provide the necessary information and direction to assist the concerned persons and their supervisors so that options are understood and an informed decision can be made by the employee. These guidelines are developed to provide additional protection for the fetus, and to establish specific procedures to protect pregnant employees. Control of employee exposures will be carried out without economic penalty or loss of job opportunity, including, if necessary, consideration for work assignment changes, consistent with University personnel policy. Assuring protection from exposures to reproductive hazards requires full cooperation with these procedures as soon as pregnancy is contemplated or determined to implement these guidelines.

Background

Through the course of work at NC State University, employees may work with agents which are known or suspect to be hazardous to human reproduction. These agents include radiation, chemicals, biological agents, and physical hazards, as well as many other factors (standing, climbing, heat/cold exposure, medications, etc). Since risk factors are encountered both in work and at home, a review by the concerned employee's personal physician is recommended so that a complete picture can be obtained. Consultation is also available through the Environmental Health and Safety Center and NC consulting physicians associated with the University occupational medicine program.

Definitions

When one considers reproductive risk, both reproductive toxicity and developmental toxicity should be considered.

Reproductive Toxicity – Adverse effect on the health of the reproductive organs, endocrine system, or gametes (egg or sperm) from exposure to an exogenous agent. May result in effects such as menstrual dysfunction, impaired fertility, feminization, masculinization, or inability to maintain a pregnancy.

Developmental Toxicity – Adverse effects on the developing organism that may occur anytime from conception to sexual maturity. Effects may include spontaneous abortion, structural or functional defects, low birth weight, or effects that may appear later in life.

Persons, both male and female, who are sexually active, planning a pregnancy, or pregnant should recognize the need for safe work practices at all times, since certain reproductive effects occur at very early stages of pregnancy, perhaps prior to recognition by females that they are pregnant.

Objective

To educate staff on the risks to reproductive health associated with work related activities and the need for safe work practices on a continual basis.

To provide procedures for assessing workplace condition, obtaining medical input, and assessing options for managing work and reproductive risk.

Established Guidelines

The NC State Radiation Safety Division provides guidelines for those with potential radiation exposures in the NC State Radiation Safety Manual,

http://www.ncsu.edu/ehs/radiation/forms/Rad_%20Safe_Manual_2005.pdf

This reference includes procedures for “Declared Pregnancies” and permissible radiation exposure limits to the embryo/fetus.

Even though OSHA has established exposure limits for hazardous materials and physical agents, a developing fetus may be adversely affected by lower doses than those considered safe for adults. Only a small percentage of chemicals, biological agents or physical agents have occupational exposure limits based on adverse reproductive effects. Thus, exposures should always be kept as low as reasonably achievable to minimize reproductive health hazards. For this reason, a review of workplace exposure conditions is recommended for those with a declared pregnancy or who are otherwise concerned.

The majority of published exposure limits, such as OSHA permissible exposure limits, do not apply to pregnant employees as very few of the published exposure limits are based on adverse reproductive health effects. For this reason it is important to keep exposures as low as reasonably achievable to minimize the potential for reproductive or developmental adverse effects.

Most MSDSs do not address reproductive or developmental hazards. Some MSDS with more detailed information will include this information. However, MSDS most often refer only to animal studies rather than actual human experience. International Chemical Safety Cards should also be consulted when determining chemical hazards.

Some Other References which are specific to Reproductive Hazards

Information from NIOSH on reproductive hazards and the workplace..

<http://www.cdc.gov/niosh/99-104.html>

To review the California Proposition 65 list which contains a listing of suspect reproductive hazards.. *1

http://www.oehha.ca.gov/prop65/prop65_list/files/P65single120806.pdf

To review additional information on this topic from the OSHA website..

<http://www.osha.gov/SLTC/reproductivehazards/recognition.html>

*1 There is not a single complete list of suspect or known reproductive hazards available. This listing, updated on a regular basis, may be of some assistance in identifying potential reproductive hazards.

Responsibility

Employees wanting to implement these guidelines should declare their actual, suspected, or planned pregnancy to her supervisor. When the individual does declare her pregnancy status to the EHSC, the individual’s supervisor must be informed. The involvement of supervisors is an essential part of the University’s safety management program. Note: persons with potential exposure to ionizing radiation

shall declare their pregnancy to their supervisor and the Environmental Health and Safety Radiation Safety Officer.

Following notification of pregnancy, the following resources will be made available to the concerned employee:

1. Confidential conferences with the supervisor, EHSC personnel, and the Occupational Medicine Program physician;
2. EHSC review of workplace chemicals and inspection of the work place as necessary; and,
3. Exposure monitoring by the EHSC, as appropriate.

Confidential Conferences

If requested, conferences will be scheduled with the employee, her supervisor, and the EHSC industrial hygienist (or radiation safety officer if potential radiation exposure is involved). The employee will be provided a copy of this procedure, along with other pertinent literature on protecting pregnant employees from reproductive hazards. Past records of work involving hazardous materials and the current occupational potential for chemical and other hazardous exposures will be reviewed as appropriate.

An optional interview with the Occupational Medicine Program physician will be offered. This interview allows the employee to express concerns and to ask questions about reproductive and developmental health, particularly as it may be affected by workplace conditions. Employees will be urged to obtain input from their personal physician on non-occupational factors which may also have adverse effects on reproductive health.

It is realized that employees may choose to maintain their pregnancy status as personally confidential for a time. Any employee may still receive safety information about pregnancy and chemical exposures at any time from the EHSC without declaring her pregnancy status.

EHSC Review of Work Area Safety

Based on results of the interview and work area safety plan, Environmental Health and Safety may conduct a review of the laboratory or worksite, to determine if additional or revised protective measures such as engineering controls, safety handling procedures, and protective equipment are recommended to prevent occupational exposures. Employees have the responsibility of adhering to University safety procedures described in the Safety Plan for the lab, the Health and Safety Manual, the Bio Safety Manual, and the Radiation Safety Manual.

Exposure Monitoring

Should exposure monitoring for radiation, chemicals and physical factors of concern be conducted, the employee and principal investigator, or supervisor, will receive a copy of the monitoring results. The goal is to keep all exposures as low as reasonably achievable.

The personnel radiation monitoring is provided by the EHSC through the Radiation Safety Officer. The radiation employee will either be assigned a monthly radiation badge and/or be placed on a monthly bioassay program.

Resulting Action

Radiation Exposures: Current investigational radiation dose limit for declared pregnant or planned pregnancy employees will direct the RSO in evaluating reported doses. Follow up action will be handled as described in the Radiation Safety Manual.

Chemical and Physical Exposures: As stated earlier, the goal for both radiation, chemicals and physical agents is to keep all exposures as low as reasonably achievable. The action taken in response to a measured exposure will be depend upon the specific circumstances and agent involved. Corrective action to exposure results of concern may include institution of additional engineering controls, improved work practices, personal protective equipment (PPE), or job rotation.

Specific Responsibilities

Supervisors

- If employees supervised have potential exposure to ionizing radiation, assure attendance at required radiation safety training, including required refresher courses and follow all requirements, including declaration of pregnancies.
- Become familiar with the contents of Material Safety Data Sheets for the materials used by employees, prior to use, noting those which include special hazards, such as reproductive effects.
- Make employees aware of their option (or requirement for potential radiation exposure) to contact NC State EH&S for a review of work area, materials used, equipment and exposure monitoring as appropriate if concerned about adverse affects to reproductive health.

Employees

- If having potential exposure to ionizing radiation, attend required radiation safety training, including required refresher courses and follow all requirements, including declaration of pregnancies.
- Become familiar with the contents of Material Safety Data Sheets for the materials you will use, prior to use, noting those which include special hazards, such as reproductive effects.
- Consult with your physician regarding risk factors and suggested precautions if you are pregnant or attempting to become pregnant.
- Be aware of your option to consult NC State EH&S to obtain a review of your work area, materials, and equipment, if you have concerns about reproductive health effects.