

CHAPTER 29

OCCUPATIONAL REPRODUCTIVE HAZARDS

2901. Discussion

a. A reproductive hazard is any biological, chemical, or physical stressor that has the potential to adversely affect the human reproductive process. These effects may occur through either parent's reproductive cells, prior to conception or during the development of the fetus. A reproductive hazard that has its effect during fetal development is a developmental hazard.

b. Many potential stressors which are considered reproductive hazards also cause injury to other human organ systems. The government already regulates many of them based on these other effects. Therefore, if the worksite is following regulations and exposures are below established permissible levels for these regulated hazards, the reproductive system is also protected. However, in some cases reproductive effects occur at lower exposure levels than these other effects. In these cases, the current exposure standards do not protect the reproductive system. These hazards are the primary concern of this chapter.

c. Much is not known about reproductive hazards. A hazardous workplace exposure may, in some cases, occur, far removed from its ultimate reproductive effect. Flexibility in handling these issues is, therefore, a necessity to allow changes to procedures and processes as knowledge is gained.

2902. Policy

a. Navy policy is to provide safe and healthful working conditions for all employees. This includes protection of employees' reproductive capacity and their future or developing offspring from untoward effects of employee exposures.

b. The number of occupational exposure criteria (permissible exposure limits (PELs,) etc.) that were developed to protect the reproductive system is limited. The goal is to keep the utilization of known reproductive stressors as low as reasonably achievable. Activities shall document efforts to achieve this goal per paragraph 2903. The primary methods of achieving this goal shall be through use of engineering controls, and the judicious use of personal protective equipment.

c. In most cases, the potential for exposure to reproductive hazards should not automatically force the removal of an individual from a position, billet or job. However, removal from a particular task within a position or job modification may be necessary. In no case shall activities use the potential for exposure to reproductive hazards to deny employment or promotion. If, as a last resort, job removal is necessary based upon operational requirements coupled with an inability to control workplace reproductive hazards, activities shall not deny any individual pay or promotion because of activities enacting measures to protect their reproductive health and/or that of their developing fetus.

d. Reference 29-1 provides policy and procedures regarding the management of pregnant service women. References 29-2 through 29-5 contain guidance on civilian personnel issues related to pregnant workers. The occupational safety and health (OSH) office shall refer all

employee questions regarding pregnancy employment issues to the human resources office. Appendix 29-A reprints specific information from references 29-4 and 29-5 on work-related issues during pregnancy.

2903. Control of Reproductive Hazards in the Workplace

a. Identification and Evaluation of Reproductive Stressors

(1) For simplicity, appendix 29-B provides a list of common chemicals that may be present in general Navy workplaces. Reference 29-6 provides additional guidance on chemical, physical and biological stressors. Safety personnel shall routinely look for these hazards during inspections. In addition, pharmacy and medical personnel should be aware of drugs and anti-neoplastic agents that reference 29-6 lists.

(2) Industrial hygiene personnel shall identify reproductive stressors that appendix 29-B lists during surveys of all Navy workplaces, as section 0802 of this instruction requires.

(3) Industrial hygienists (IH) shall clearly annotate (highlight, asterisk, etc.) reproductive stressors on the list (that paragraph 0803b requires) of materials and harmful physical agents found in each workplace.

(4) Where stressor-specific exposure standards developed with the intent to protect the reproductive system exist, activities shall quantify the degree of exposure using conventional means, and then compare the results to those exposure standards (i.e., PELs, threshold limit values (TLVs), etc.). Where stressor specific standards either do not exist, or were developed without consideration of reproductive health risk, activities shall still determine the quantitative evaluation of the exposure if possible. An IH and an occupational physician shall review the results of sampling. They shall determine the significance of any potential reproductive risk to male and female employees or developing fetuses at this time and incorporate the findings into the report along with recommended mitigation procedures, if necessary.

(5) The IH shall specifically address a reproductive hazard assessment (including negative determinations) as part of the routine evaluation in industrial hygiene survey reports they submit to the cognizant line activity per paragraph 0803 of this instruction. If the exposure assessment is unacceptable, recommendations to reduce exposures per paragraph 2902b should be made.

(6) Activities should contact the Navy Environmental Health Center (NEHC) if they need additional assistance, (757) 462-5500 (DSN: 253-5500).

b. Hazard Abatement

(1) Chapter 5 discusses basic principles for controlling all hazards in the occupational environment. These include substitution with less hazardous materials; engineering controls (local exhaust ventilation systems, etc.); administrative controls (job rotation, work time limits, etc.); and the use of personal protective equipment (PPE). Activities shall not consider the routine prolonged removal of an individual (or subpopulation) from a particular worksite an appropriate administrative control.

(a) For chemicals that are known reproductive hazards, substitution with a less hazardous substance is the abatement method of choice.

(b) Activities shall consider all products that they currently use containing more than trace amounts of any of the chemicals. Appendix 29-B lists for possible elimination by substitution with a less hazardous material. While it is not possible to establish a strict definition of the term "trace", the presence of a confirmed reproductive toxicant in a product, at a concentration of 0.1 percent or greater by weight, should serve as a general guideline with regard to consideration of hazardous materials control/ substitution initiatives.

(c) Activities shall consider products containing chemicals in appendix 29-B for elimination/reduction via the Environmental and Natural Resources Program Manual in reference 29-7.

(d) Activities shall also consider these chemicals (appendix 29-B) for substitution issues in the development of hazardous material inventories and authorized use lists that chapter 7 of this instruction prescribes.

(2) The use of PPE, including respirators, is the last resort method for hazard abatement. If activities use PPE, they shall exercise caution to ensure that the PPE does not pose a heat stress, heavy lifting, or other hazard in itself.

c. Training

(1) All occupational safety and health (OSH) professionals should receive training concerning reproductive hazards. The training should address Navy policy, legal considerations, risk communication, and technical issues (hazard identification, evaluation, and control). The Navy considers training provided in Navy-sponsored workshops as well as CNET-approved courses sufficient to satisfy this requirement.

(2) Activities shall also specifically address reproductive hazards in OSH training programs for personnel responsible for or working with reproductive stressors (e.g., management personnel, civilian personnel officers, supervisors, employee representatives, and non-supervisory personnel) per chapter 6 of this instruction.

d. Counseling Section

(1) General. Activities shall afford all employees who have potential exposure to occupational reproductive hazards counseling by a credentialed occupational medicine provider, if requested.

(2) Medical activities including contract facilities, shall question all patients, especially pregnant women, seen at the facility regarding their, and their spouses' potential exposure to developmental hazards. The Navy recommends referral to occupational medicine for evaluation if activities determine there is a possibility of exposure.

(3) Developmental Hazards. The Navy strongly encourages all female employees who become pregnant to notify their commands immediately. Upon notification, the command shall perform the following evaluation:

(a) The woman shall be given the Developmental Hazard questionnaire in appendix 29-C. The pregnant woman should fill this out with command supervisory personnel, knowledgeable of the woman's workplace. If the potential for exposure to a developmental hazard is present in the workplace, or if activities have not determined the possibility of such potential, activities shall arrange for an occupational health physician to evaluate the woman as soon as possible.

(b) If the most recent industrial hygiene survey documents that no potential for exposure to a developmental hazard exists in the woman's workplace, then an occupational medicine evaluation should occur if either the pregnant woman or her commanding officer requests it.

(c) Place a copy of the appropriate sections of the completed evaluation in the employee's medical record and in the employee's command safety office.

(4) Activities shall encourage all male employees anticipating conceiving children within 120 days or whose partner is currently pregnant to notify their commanding officer so that activities can conduct a reproductive/developmental hazard evaluation.

(5) Male and female infertility evaluations should include consultation with occupational medicine to determine if occupational or environmental exposures may be related to the disorder.

2904. Responsibilities

a. Commanding Officers shall:

(1) Ensure that all safety officers are cognizant of all items in appendix 29-B utilized at the command. Medical commands and commands with hospital units shall utilize the list in reference 29-6.

(2) Train all employees concerning the importance of occupational reproductive hazards, and specifically concerning the hazards present at the command, and the importance of command notification of conception of offspring. Upon notification of pregnancy, ensure that female workers complete the questionnaire in appendix 29-C and that an occupational physician performs an evaluation per 2903(d)(2).

(3) Maintain exposures of all personnel to reproductive hazards below applicable standards where available or below limits that occupational health professionals recommend where no standards are yet established.

b. The Chief, Bureau of Medicine and Surgery (BUMED) shall:

(1) Provide for professional and technical assistance relative to reproductive hazards to all commands.

(2) Publish guidance for occupation health professionals on industrial hygiene and medical issues concerning occupational reproductive hazards. Such guidance shall include:

(a) Workplace surveillance for the presence of reproductive hazards, and their exposure levels

(b) A current list of known reproductive stressors that may be present in general Navy workplaces. Appendix 29-B is the 1998 edition of this list.

(c) Information on reproductive stressors considered, but not selected, for the list along with the rationale for non-selection

(d) Appropriate training for all OSH professionals

(e) Appropriate counseling to personnel potentially exposed to reproductive hazards.

(3) Review references 29-1 and 29-8 and this chapter to ensure that Navy policy is consistent with the Supreme Court ruling and other related legislation.

(4) Review of possible candidate-substitute materials identified by Commander, Naval Supply Systems Command (COMNAVSUPSYSCOM) to identify potential reproductive toxicants, upon request.

(5) Assist CNET in developing training programs for OSH professionals and workers. Provide for individual occupational medicine counseling of pregnant employees exposed to developmental hazards per section 2903d and of other employees upon request.

c. Chief of Naval Education and Training (CNET) shall develop training programs for OSH professionals and workers to address reproductive stressors of Navy concern. BUMED shall provide technical guidance for this training.

d. COMNAVSUPSYSCOM shall identify products currently in Navy use that contain reproductive stressors listed in appendix 29-B for substitution, elimination, and annotation in HMIS.

Chapter 29

References

29-1. OPNAVINST 6000.1A of 28 Feb 89, Management of Pregnant Servicewomen

29-2. OCPMINST 12630.1 of 17 Jun 88, Absence and Leave (NOTAL)

29-3. Public Law 95-555 (92STAT 2077) (78), Prohibition of Sex Discrimination on the Basis of Pregnancy (NOTAL)

29-4. Title 5 Code of Federal Regulations part 335 of 1 Jan 2000, Promotion and Internal Placement (NOTAL)

29-5. 29 CFR 1604.10, Employment Policies Relating to Pregnancy and Childbirth (NOTAL)

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29-6. Navy Environmental Health Center Technical Manual NEHC-TM92-2, May 1992, Reproductive Hazards in the Workplace: A Guide for Occupational Health Professionals

29-7. OPNAVINST 5090.1B of 1 Nov 94, Environmental and Natural Resources Program Manual (NOTAL)

29-8. Supreme Court Ruling, 89-1215 (20 Mar '91), International Union, United Automobile, Aerospace and Agricultural Implement Worker's of America, UAW, et al., Petitioners v. Johnson Controls, Inc. (NOTAL)

Appendix 29-A

Pertinent Reference Information On Pregnancy Employment Policies

1. Federal Personnel Manual, Subchapter 13, Article 13-5, paragraph a.(2)

Agencies should always be aware of working conditions or strenuous requirements in the workplace that could have an adverse effect on an expectant mother. If, after consulting her doctor, an employee asks for a change in duties or assignment, every reasonable effort should be made to accommodate her. Agencies may request medical certification of the nature of the limitations recommended by the employee's doctor. Sick leave may also be used for physical examinations.

2. 29 CFR 1604 Appendix - Questions and Answers on the Pregnancy Discrimination Act

a. Question: If, for pregnancy-related reasons, an employee is unable to perform the functions of her job, does the employer have to provide her an alternative job?

Answer: An employer is required to treat an employee temporarily unable to perform the functions of her job because of her pregnancy-related condition in the same manner as it treats other temporarily disabled employees, whether by providing modified tasks, alternative assignments, disability leaves, leave without pay, etc. For example, a woman's primary job function may be the operation of a machine, and, incidental to that function, she may carry materials to and from the machine. If other employees temporarily unable to lift are relieved of these functions, pregnant employees also unable to lift must be temporarily relieved of the function.

b. Question: What procedures may an employer use to determine whether to place on leave a pregnant employee who claims she is able to work or deny leave to a pregnant employee who claims that she is disabled from work?

Answer: An employer may not single out pregnancy-related conditions for special procedures for determining an employee's ability to work. For example, if an employer requires its employees to submit a doctor's statement concerning their inability to work before granting leave or paying sick benefits, the employer may require employees affected by pregnancy-related conditions to submit such statement. Similarly, if an employer allows its employees to obtain doctor's statements from the personal physicians for absences due to other disabilities or return dates from other disabilities, it must accept doctor's statements from personal physicians for absences and return dates connected with pregnancy-related disabilities.

c. Question: Can an employer have a rule that prohibits an employee from returning to work for a predetermined length of time after childbirth?

Answer: No.

d. Question: If an employee has been absent from work as a result of a pregnancy-related condition and recovers, may her employer require her to be on leave until after her baby is born?

Appendix 29-A

Enclosure (1)

Answer: No. An employee must be permitted to work at all times during pregnancy when she is able to perform her job.

e. Question: Must an employer hold open the job of an employee who is absent on leave because she is temporarily disabled by pregnancy-related conditions?

Answer: Unless the employee on leave has informed the employer that she does not intend to return to work, her job must be held open for her return on the same basis as jobs are held open for employees on sick or disability leave for other reasons.

f. Question: Must an employer hire a woman who is medically unable, because of pregnancy-related conditions, to perform a necessary function of a job?

Answer: An employer cannot refuse to hire a woman because of her pregnancy-related condition so long as she is able to perform the major functions necessary to the job. Nor can an employer refuse to hire her because of its preferences against pregnant workers or the preferences of co-workers, clients, or customers.

Appendix 29-B

Occupational Reproductive
Chemical Stressors List^A

Chemical	Class	PEL	TLV	Type of Stressor		
Acetohydroxamic acid*		-	-			D
Aminopterin	Insecticide	-	-	F		D
Arsenic	Pesticide	+	+			D
Benomyl	Fungicide	+	+	M		D
Benzene	*	+	+	M		D
Bromoxynil	Herbicide	-	-			D
Cadmium	Metal	+	+	M		D
Carbon disulfide	Solvent	+	+	M	F	D
Carbon Monoxide	*	+	+			D
Chlordecone(Kepone)	Insecticide	-	-			D
Cyanazine	Herbicide	-	-			D
Cycloheximide	Fungicide	-	-			D
Cyhexatin	Insecticide	-	+			D
Dinocap	Insecticide	-	-			D
Dinoseb	Insecticide	-	-	M		D
1,2-Dibromo-3-chloropropane	Nematocide	+ R	-	M		
m-Dinitrobenzene	*	+	+	M		
o-Dinitrobenzene	*	+	+	M		
p-Dintrobenzene	*	+	+	M		
Epichlorohydrin	Solvent	+	+	M		
Ethylene glycol monoethyl ether	Solvent	+	+	M		D
Ethylene glycol monoethyl ether acetate	Solvent	+	+	M		D
Ethylene glycol monomethyl ether	Solvent	+	+	M		D
Ethylene glycol monomethyl ether acetate	Solvent	+	+	M		D
Ethylene oxide	Sterilizing Agent	+ R	+		F	
Hexachlorobenzene	*	-	+			D
Hydroxyurea	*	-	-			D
Chemical	Class	PEL	TLV	Type of Stressor		

Lead	Metal	+ R	+	M	F	D
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Mercury and mercury compounds	Metal	+	+	D
Methyl bromide	Fumigant	+	+	D
Methyl mercury	Organometal	+	+	D
Nickel carbonyl	*	+	+	D
Polybrominated biphenyls (PBBs)	*	-	-	D
Polychlorinated biphenyls(PCBs)	*	+	+	D
2,3,7,8-Tetrachloro-dibenzo-para-dioxin (TCDD)	*	-	-	D
Toluene	Solvent	+	+	D
-				
Warfarin	Rodenticide	+	+	D

^A = Source for this information is 31 March 1998 Navy Reproductive Hazards Review Board Meeting

M = Male

F = Female

D = Developmental

* = Unable to classify into a single functional class

PEL = OSHA's permissible exposure limit (PEL)

TLV = ACGIH threshold limit value (TLV)

+ = Exists

- = Does not exist

R = Level considers reproductive effects

Appendix 29-C

Workplace Exposures Of Reproductive Concern
Joint Supervisor's And Worker's Statement

The supervisor and the worker are to complete this form at the time of a female worker's confirmed pregnancy or any time a male or female worker is concerned about workplace reproductive hazards.

Name _____ Rank/Rate _____ Command/Shop _____

Brief description of job duties (not job title) _____

Supervisor _____

CHECK ALL THAT ARE APPROPRIATE

Workplace: _____ shipboard _____ shop _____ office _____ outdoors _____
_____ other

<u>HAZARDS(specify)</u>	<u>WORKER EXPOSED</u>	<u>WORKER IN</u>
<u>MED SURVEILLANCE</u>		

CHEMICAL

Solvents _____ no _____	_____ yes _____ no	_____ yes _____
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Metals _____ no _____	_____ yes _____ no	_____ yes _____
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Pesticides _____ no _____	_____ yes _____ no	_____ yes _____
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Antineoplastics _____ no _____	_____ yes _____ no	_____ yes _____
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Anesthetics _____ no _____	_____ yes _____ no	_____ yes _____
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Other _____ no _____	_____ yes _____ no	_____ yes _____
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PHYSICAL

Heat _____ no _____	_____ yes _____ no	_____ yes _____
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Non-ionizing radiation _____ no _____	_____ yes _____ no	_____ yes _____
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Noise _____ no _____	_____ yes _____ no	_____ yes _____
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Vibration _____ no _____	_____ yes _____ no	_____ yes _____
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BIOLOGICAL (infectious agents) _____ no _____	_____ yes _____ no	_____ yes _____
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OTHER HAZARDS(specify)

Appendix 29-C

Enclosure (1)

