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MASTER

TALK TO BE PRESENTED AT THE OCCUPATIONAL HEALTH NURSING COURSE

HANFORD ENVIRONMENTAL HEALTH FOUNDATION CONFERENCE ROOM

November 5, 1969

By: R. D. Anderson

Length of Talk: 5 Minutes

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HEALTH PHYSICS AND THE OCCUPATIONAL HEALTH NURSE

An important member of the industrial safety and worker protection program that serves the nuclear industry is the Health Physics group.

Health Physics deals directly with the nuclear problems which concern the health of the radiation worker. An employee working with nuclear material can be exposed to ionizing radiation and radioactive contamination. He must have a knowledge of the material with which he is working and must take steps to protect himself. He is furnished protective equipment with which to do the work, and records are kept to record the amount of radiation to which he was exposed. During the course of the work, he may inadvertently acquire some radioactive contamination on his skin or he may be accidentally exposed to airborne radioactive dust contamination. The cause of the employee incurring contamination to his person either internally or externally is usually the failure of the employee to wear the protective apparel which he was furnished. When this occurs, steps must be taken at once to remove the radioactive contamination from his skin and from his nose.

The skin is usually decontaminated by washing with soap and water. In the case of nasal contamination, which is caused by breathing radioactive airborne dust particles, the employee's nasal passages are decontaminated by irrigating the passage with normal saline solution.

At this point, I would like to show you some slides which will acquaint you with some of the techniques and equipment used in skin and nasal decontamination.

Slide # 1

In this scene, you see the employee surveying himself with a detection instrument. If he detects radioactive contamination on his person, he will notify the Health Physics group who will determine the extent of the personal contamination and take immediate action to decontaminate the employee.

Slide # 2

The employee's skin is decontaminated with soap and water. Notice the surgical gloves worn by the employee performing the decontamination. This employee must take steps to prevent spreading the contamination to his person.

Slide # 3

If it is suspected that the employee was exposed to airborne contaminated dust, nasal smears will be taken by using small paper filters. The employee will insert these papers in his nasal opening, and the papers will be dried and counted on an electronic counter.

Slides #'s 4, 5, and 6

If any radioactive contamination is detected in the employee's nose, the employee will be asked to irrigate his nasal passages with normal saline solution. This will be repeated until no contamination can be detected by using the nasal smear technique.

All of the decontamination procedures I have mentioned are usually performed by the Health Physics group.

If complications of a medical nature should occur during the decontamination of the employee or if the employee has incurred an injury at the time he received the contamination, the medical group would be asked to assist in the treatment of the employee. It is important that the Occupational Health Nurse be familiar with some of the techniques that I have mentioned, if she is going to serve the nuclear industry.

RD Anderson/mh
October 9, 1969

PLEASE DEPOSIT
USED LAUNDRY IN
LAUNDRY HAMPER

PACKAGED
CONTAMINATED
CLOTHING
↓

DO NOT
PUT Shoe Cover
IN THIS
CONTAINER

BATTELLE-NORTHWEST

PHOTOGRAPH

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