a. Disposition of Solid Wastes.

Solid radioactive wastes may be disposed of by burial in the ground or at sea. In addition, certain items which contain radium such as luminous instrument dials, may be returned to a radium refining company such as the Canadian Uranium and Radium Corporation or the U. S. Radium Corporation; however, if the amounts of such dials do not justify disposition in this manner, they will be disposed of as indicated in the following paragraphs. Waste must be packaged to comply with the regulations of port authorities concerned when moved by water transportation. Personnel transporting waste materials on land and disposing of them at sea must be instructed as to the proper protective measures.

(1) Burial in the Ground.

Burial sites will be located in isolated areas of the installation and in a location identified on appropriate maps. Selection of such sites should be based upon composition of soil, absence of ground water, and the unlikelihood of erosion exposing the buried material. Locations such as limestone, or field stone, should be avoided with preference to soil in which there is little or no leaching. Burial sites will be fenced in and locked to prevent the entry of unauthorized personnel and will be posted with AFTO Form 9 Placards. In addition, the site will be periodically remonitored to keep the radiation warning placards up-to-date. Burial in the ground may be accomplished under the following general principles:

(a) Miscellaneous small radioactive materials, such as electronic tubes, instrument dials, small test objects, and contaminated parts of equipment should be placed in salvage instrument containers, Air Force Stock No. 6700-210343i, or a similar item. AFTO Form 9A, Radiation Warning Tag, will be accomplished and placed inside the container and the container sealed. A satisfactory means of disposal of the container is in a disposal well. Such wells should be approximately 24 inches total diameter with 6-inch concrete walls and a 1-foot concrete plug at the bottom. The wells should be approximately 12 feet deep. The containers are dropped in the well and when they reach a level of 5 feet from the surface, concrete is placed around and on top of them. Large items should be sealed in 55-gallon drums, which should be similarly identified with AFTO Form 9A, encased in a block of concrete, and buried to a depth of not less than 5 feet.

(b) Large bulky items of medium to low activity should be stored until the activity decays to a point where the material may be consolidated by melting down. In some cases, large items of high activity may be melted and diluted with stable chemical of the same element in the manner as liquid wastes. Such procedures will be accomplished under close technical supervision of the Medical Service and Air Installations.

(2) Burial at Sea.

Burial of radioactive wastes at sea has been authorized. Burial in inland lakes is prohibited. Disposition of considerable quantities of radioactive wastes must be limited to areas located beyond the continental shelf and at depths of approximately 1000 fathoms, or in areas established by the U. S. Navy for the dumping of explosives and other hazardous materials. Proximity to areas commonly used for fishing or for submarine cable shall be avoided. Two currently approved Navy disposal sites are: for East Coast Areas -- 72° 43' west longitude; 38° 52' north latitude and for West Coast Areas -- 123° 6' west longitude; 37° 40' north latitude. Containers must have sufficient weight and density in order to sink; a specific gravity of 1.4 (87 lb per cubic foot or greater) is required. Each container must be weighed and calculations made to insure that it will sink.