

contractor could begin start-up of supporting utilities and process hardware. The start-up period prior to toxic operations was called, "systemization." The JACADS systemization effort consisted of three distinct elements: computer program checkout called applications program verification; acceptance testing; and individual unit systemization, which included operator training, certification, and performance tests with inert materials. This phase of the program cost approximately \$100 million.

d. JACADS initiated GB rocket demilitarization operations in July of 1990 with the first of four operational verification tests (OVT). These tests are intended to demonstrate the adequacy of the demilitarization technology on the different major munition types and the three primary agents contained in the U.S. Stockpile. The four items scheduled for destruction during OVT are GB M55 rockets, VX M55 rockets, bulk containers of mustard, and mustard-filled projectiles. After the completion of the OVT, plans are to destroy the remaining stocks that are on Johnston Atoll. The projected cost to complete OVT and destroy the remaining stockpile is approximately \$425 million. Current plans are to complete disposal operations in 1995.

e. The first operational verification test, using GB M55 rockets, was completed in February 1991. During this test, 7,490 rockets were processed and about 75,000 pounds of GB agent was destroyed. A major lesson was learned from the first test related to the performance of the material handling equipment associated with the deactivation furnace. Significant quantities of molten aluminum were generated from the rocket warheads during thermal processing in the deactivation furnace. Aluminum would build up on the heated discharge conveyor belt and cause fouling and jamming of the belt at the blast discharge gates at the end of the conveyor. Significant engineering modifications were needed to correct this problem. The effectiveness of the modifications will be evaluated during the second operational verification test with VX M55 rockets.

4. Staffing and Training

a. The operations and maintenance staff for the JACADS program is approximately 450 people. This includes plant operations and maintenance personnel and support groups such as laboratory, engineering, quality assurance, and program management support. The plant operates on one eight-hour shift, six days a week and is idle during the other sixteen hours. The plant will begin processing on three shifts after the last OVT, which will involve disposal of one of the mustard projectile types.

b. The JACADS workforce training program consists of two phases: qualification and certification. In order to become qualified employees must attend general courses designed to introduce them to the JACADS program and then progress to job-specific classroom training. Upon completion of the classroom