



THIS U.S. ARMY Engineers photo illustrates the push on Safeguard construction in Northeast North Dakota. Contractors and Engineers are trying to get all installations enclosed before

winter strikes on the Great Plains. This photo is of steel rebar which will form the skeleton of concrete walls on the Perimeter Acquisition Radar building near Concrete, N.D.

(U.S. Engineers Photo)

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Workload Staggering:

An all-out effort to complete all major concrete work during this construction season is being pushed at the Grand Forks Safeguard facilities in northeast North Dakota.

The official "Information Bulletin" of the Huntsville Division, US Army Corps of Engineers makes that report in its latest issue.

Before winter again closes down outside operations, contractors and the Corps plan to have all buildings snugly enclosed in concrete. Col. John L. Lillibridge is project engineer for the US Army Corps of Engineers. William Gillfillan is project manager for Morrison-Knudsen and Associates, prime contractors.

Since concrete work started in March, substantial progress has been made on concrete emplacement at four major buildings; Perimeter Acquisition Radar Building (PARB); PAR Power Plant (PARPP); Missile Site Control Building (MSCB), and Missile Site Radar Power Plant (MSRPP).

M-K has concentrated concrete construction on the PARB and the MSCB. So far, 6,684 cubic yards have been "poured" this season at the PARB, joining 25,000 cubic yards of last construction season; 4,409 cubic yards at the MSCB in addition to the 18,750 yards of '70; 2,585 yards at the MSRPP with the 14,500 of last year; 1,516 yards at the PARPP with the 14,000 of last year.

Total concrete emplacement will be approximately 37,500 cubic yards at the MSCB; 63,500 at the PARB; 27,500 at the MSRPP; and 23,500 at the PARPP.

The figures look simple but in reality are staggering. The total cubic yardage reaches 152,000. Transposed to pounds it becomes 608 million pounds - or tons?, 304,000 tons. One recent driveway of about average size in Grand Forks took 13 yards to complete. Thus, Safeguard concrete would pour 11,700 such driveways.

While concrete work is being pushed, other work has increased concomitantly. The work force buildup has jumped to 2,500 contractor personnel from a mid-winter low in January of 700 workers.

Mechanical, electrical, and duct work is on schedule, the bulletin reported. In addition work on Spartan and Sprint missile farms is progressing. The first of the massive diesel generators for the power plants is expected for delivery late this month and the remaining units are to be delivered in September.

Preliminary work has started on two contracts let in March. These were for start of work at Remote Launch Sites (RSL) and for nontechnical support facilities. Zurn Engineers work on the water delivery contract from the Fordville Aquifer to the Safeguard Sites near Concrete and Nekoma is nearly complete. Water from the Fordville System has been pouring into the sites since last December.

The Information Bulletin lists the following progress:

-Spartan Field: The Spartan Missile launch stations are complete to within 20 feet of finished grade. This was work completed in the 1970 season. It included emplacement of launch and exhaust chambers. Additional work this season has included extensions of the launch and exhaust chambers and emplacement of mechanical and electrical equipment vaults and launch preparation equipment vaults. Ten additional exhaust and launch chamber sections have been welded into place this season but so far do not have the maintenance or launch chambers attached. Approximately 55 to 60 percent of the structural concrete for the Spartan field has been poured.

-Sprint Field: Cells have been augered and base slabs have been poured. Launch tubes are being placed in holes as they are received and prepared. About 30 percent of all structural concrete for Sprint cells is in place.

-Weapon System Contractor: Western Electric has chosen Cavalier, ND, for the site of 260 housing units for families engaged in work on the Safeguard System. This announcement was made by Robert Olson, mayor of Cavalier. He said construction would start later this summer.