

TA-06

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TA-6  
HE  
Photographic Lab:  
Copper  
Processes

# Los Alamos NATIONAL LABORATORY memorandum

(2)

Explosives Technology and Applications  
M-7 Detonation Systems

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**SUBJECT: RESIDUES FROM 1951-1976 WORK AT TWO MILE MESA SITE, TA-6, AND SPECULATIONS ON SUBSEQUENT CHANGES.**

TA-6, Buildings # 3, 4, 5, 6, 7, 8, 9, and 19, were occupied by the Research Section of the Detonator group, GMX-7, from the time that test firing of bridgewire detonators was moved to DF-Site, TA-40, until 31 January, 1972. On 1 February, 1972, the GMX-7 Research Section personnel and facilities were absorbed by the Chemical Lasers group, L-3. Its GMX-7 Section Leaders were:

- |                 |                                |
|-----------------|--------------------------------|
| Douglas Venable | 1951 - January, 1957           |
| Russell E. Duff | February, 1957 - July 1962     |
| Garry L. Schott | August, 1962 - January, 1972   |
|                 | Acting: July 1961 - July, 1962 |

The primary work of the GMX-7 Research Section was experiments on detonation and shock waves in gases. Solid carbon dust (soot) was sometimes produced, but most of the spent materials remained gaseous and were exhausted into the atmosphere and dispersed.

Ionizing radiation, in the form of electrically generated X-rays, was employed through the 1950s and until about 1965. To my knowledge, no radioactive sources were present at TA-6 during GMX-7's use of the site.

TA-6, Building 6 contained two photographic darkrooms near the east end of the structure, and a "Janitor's" sink in the west-end room (#101), besides the two restrooms for human wastes. These all drained into the sanitary sewage drain to Septic Tank TA-6-43, located north of TA-6-8. Plumbing in Buildings TA-6-5 and TA-6-8 also was/is drained to TA-6-43; it was used mainly for cooling water streams and incidental washing of hands, etc. The janitor's sink in TA-6-6 frequently received rinsings of copper, brass, and steel parts dipped in strong (5 molar, +/-) nitric acid for removal of silver solder flux and oxidized metals.

Building TA-6-3 also contained a photographic darkroom, operated until 1957, as well as sanitary plumbing. These drained to Septic Tank TA-6-40.

Complete or partially loaded (with PETN) detonators, types SE-1 and earlier equivalents, were fired singly inside apparatus in TA-6 buildings 3, 19, and possibly 5, 7, 8, and/or 9. They were stored in a combination safe inside Building TA-6-4, which was a magazine of wooden construction that was razed about 1963.

Approved by: [Signature]

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experimental programs did not expand to TA-6 to the degree expected. Paul F. Bird was the only GMX-7 & L-3 member who remained at TA-6 with R-5, doing primarily computations and electronics development. About 1980, at the request of A. D. Van Vessem, I arranged with then Group H-7 for removal of stores of solid and liquid laboratory chemicals present since GMX-7's usage in TA-6 Buildings # 5, 7, and 8. I was present when H-7 packed up the items and took them away.

In the early 1980s, I believe TA-6-6 was used for printed circuit production by E-Division. The stainless steel sink installation on the north wall of room 107 was apparently added in the course of the printed circuit operation. The concrete piers penetrating the floor in this location, and a plywood underfloor enclosure to house vacuum pumps in the crawl space near them, were added for GMX-7 about 1960.

TA-6-1 was a carpenter shop throughout its GMX Division (and prior) tenancy, and into its WX-Division extension. Late in the 1970s the woodworking tools were removed to TA-9 and/or sent to salvage by Group WX-2. During the E-Division activity at TA-6-6, warehousing of cable and boxed inert supplies occurred in TA-6-1.

Cy: John McAfee, M-7, MS P950  
M-7 File