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INTER-OFFICE MEMORANDUM

DATE March 1945

TO: Safety Committee  
FROM: Comdr. N. E. Broadbury, Chairman Safety Sub Committee on Handling of H. E.  
SUBJECT: Report on Conditions at Firing Sites.

PUBLICLY RELEASABLE  
LANL Classification Group  
*Mark Miller 5-4-98*

1. As a result of our inspection of the various firing sites on the Project, we submit herewith the following report of conditions which seem to merit attention:  
Classification changed to Publicly Releasable by authority of the U.S. Atomic Energy Commission.  
Per Phil Dolcher 4/11/54  
(Person authorizing change in classification) (Date)

2. Anchor Ranch By Pat McAndrew *12/9/54*

(a) It appears that there should be some protection in front of the hole through which the firing leads are pushed in order to prevent their coming in contact with other electrical equipment. This might be a small box with a hinged cover. (Date: 5/14/85)

(b) The Booster Building contained far too much explosive.

(c) The blast tube leading from the chamber presents unknown amount of hazard, and it was suggested that blast measurements be made in the vicinity to determine whether the danger from this tube is real or imaginary.

3. Bayo Canyon

(a) The firing circuit needs some modifications of which the following items are typical:

(1) The firing box should only have power in it after it has been unlocked and opened.

(2) The two-way switch in this box should have a stop so as to prevent the box from closing when the switch is in the live position.

(b) The high voltage firing setup should be modified so that the locked switch in the condenser charge line does not have an AC

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power line connected to any part of it when it is locked.

(c) The board on which the firing circuits terminate should be provided with a screwed on cover and the terminals of the unused firing circuit should be provided with shorting plugs.

(d) Linoleum should be provided for the floor of the magazines.

(e) The cap storage magazine could be relocated in a less exposed position.

4. K Site

(a) Access road to the magazine is unsatisfactory.

(b) Linoleum floor needed in boosting room.

(c) Inadequate posting of signs.

5. R Site

(a) No check is provided on personnel who have phoned for permission to verify that such personnel have actually reached shelter.

(b) The termination of the firing lines at the firing point is poor and subject to confusion with power lines.

(c) The firing lines also run through a conduit which is subject to flooding.

(d) The locked firing box has power in it while the box is locked.

(e) The mountings for charges are not sufficiently substantial.

(f) Considerable carelessness was observed in the handling of charges.

(g) The general condition of the wiring at the large firing point is poor and should be replaced and modified.

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6. B. Site

- (a) A booster hutment is urgently needed.
- (b) There is no lightning protection on magazine.
- (c) Magazine was dirty and has inadequate approach.
- (d) Inadequate signs and phone system for entering clearance.
- (e) Firing leads at pit unsatisfactory. Separate junction boxes for firing lead required.
- (f) High voltage firing system unsatisfactory and requires immediate modification in accordance with approved systems.

7. A Site

- (a) No map of danger area.
- (b) Inadequate posting of signs.
- (c) Shelves in magazines inadequate.
- (d) Poor telephone communication system in case of accident.
- (e) Firing leads in pit in close proximity to other power lines.
- (f) Safety of personnel in booster hut inadequate.

8. T Site

- (a) Magazine near main building requires additional earth protection.
- (b) Felt or linoleum lining for shelves and tables supporting charges should be installed.

9. P. Site

This Site offers no opportunity for criticism and had the best safety setup of any Site visited.

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10. Two-Mile Mesa

(a) Some method for preventing personnel from approaching the firing site on blind side when man is behind barricade attaching cap should be set up. After cap is attached, all personnel should be in control room.

(b) Lightning protection required.

(c) Jumbino firing site requires better firing lead be installed.

(d) Electronic equipment at this point in great confusion but fortunately does not effect the safety of operations.

11. Pajarito Canyon

(a) Medium and small firing sites lack adequate cap and day storage magazines. Cap magazines unlocked.

(b) Firing circuits run through a junction box with other power leads.

(c) In pit firing circuit is on panel board adjacent to a 220-volt plug.

(d) Buzzer in firing box should be mounted externally.

(e) Firing circuit at medium firing site in atrocious condition and should be immediately condemned.

(f) Inadequate warnings of personnel approaching either firing site exist.

(g) No consistent system of sounding horn and siren signals.

(h) No list of firing supervisors prepared.

(i) Floor of charge magazine should be provided with linoleum, preferably conducting.

(j) Cap storage magazine should be relocated. Main charge storage magazine and trimming building unlocked at all times.

(k) Too much H. E. in boosting building, and another magazine apparently required.

12. Lower Pajarito Canyon

Operations here are considered safe as long as all personnel are in subterranean shelter. Locked boxes should be installed on gun solenoid circuits.

The Inspecting Committees noticed an almost general inadequacy of signs indicating dangerous areas, danger signals, and precautions to be observed by entering personnel.

In many Sites the phone system is totally inadequate for the quick reporting of accidents, since multi-party lines exist.

In many cases where flags are used to indicate dangerous operations in progress no signs exist pointing out where the flag should be looked for.

13. Anchor Ranch Far Point

(a) No match check at Anchor Ranch gate.

(b) Guard did not know meaning of siren signals for open chamber shots.

(c) Guard permitted parking in a hazardous area behind an earth embankment.

(d) Adequate signs should be erected to prohibit such parking at all times irrespective of warnings from the guard.

(e) Booster hutment for Far Point littered with assortment of wood, steel and brass parts.

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(f) Danger areas for Site not marked on displayed map.

14. Upper C Site

(a) Trees immediately adjacent to boosting buildings should be provided with adequate grounding to protect against lightning.

(b) Air cylinder in vibrator shack should be provided with stand or clamp to prevent falling.

(c) All firing boxes should be water-proofed and provided with locks.

(d) Firing box for embankment shots should have firing circuit switch mounted in independent box with lock so that no power cables are involved inside this box.

(e) Firing line to slab point should be supported overhead.

(f) Cap box and day magazine should be provided with locks when not actively in use.

15. Lower Q Site

(a) Firing circuit goes into junction box with other power circuits.

(b) An independent conduit route to the shorting switch should be provided.

(c) A locked box with no power in it should be provided for the firing switch.

(d) The access roads to the front of the chamber should be blocked off by means of ropes or a gate at all times.