

29 Jan.'93

To: K.W.Soucy
From: J.R.Snedeker

REF.: MONTHLY REPORT FOR JANUARY 1993

SAFETY, HEALTH AND HOUSEKEEPING:

- Site audit completed for month.
- Completed Process Hazards Audit with R.Gurtowski in the shotgun GPM area for GPM fire suppression systems.
- Test Lab Technicians were scheduled for and completed Blood/Lead checks in Medical, results have not yet been returned from the Lab.
- Quarterly Safe Gun Handling for Research personnel including the Test Lab is scheduled and will be conducted by the Research Safety Committee.

PERSONNEL ISSUES:

- R.Hove, Senior Tech., is still out on long term disability. I have worked closely with Plant Medical to monitor the situation and have kept in phone contact with Bob to monitor his progress toward recovery. Both he, his doctor and we are hopeful that he will be able to return to work toward the end of February after his next doctor's appointment.

MAINTENANCE:

- We have had one of the test jacks rebuilt and need to have several more rebuilt from the ground up. We are currently down to 3 jacks in the testing area. This equipment takes a heavy beating from the recoil of the test guns. We have also modified 3 of the "Belly Protectors" in shooting stations 2, 3, and 4 to allow for testing of the new O/U's. Repairs have also been completed on one of the water shot catcher pumps and welding repairs have been completed on No. 2 water shot catcher.

TEST PROGRAMS:

- The majority of testing effort during the month has continued to be on the O/U. A major effort has been made toward endurance testing to determine the effects of various design and process changes as they relate to the receiver life. A second major effort was made through the use of strain gauge measurements to identify the conditions under which receiver life is affected and to quantify those effects. We believe that we now have a firm understanding of the conditions and the mechanism contributing to reduced receiver life. The work done by D.Findlay using the Stress Lab computer modeling was of much help in understanding the question of reduced receiver life. In addition to Dave's work, the new electronic test equipment just purchased by the Test Lab allowed us to make multiple strain gauge measurements on the receivers that previously we had no way to perform.

PROJECTS:

- Passive Bullet Traps

The Passive Bullet Traps are now fully installed and operating in the Pressure & Velocity Range and in the Basement Test Range. We are very pleased with the performance to date of these Traps. Their use will allow us to eliminate a major source of hazardous waste (the sand/lead mixture) and the lead can now be easily salvaged. In addition, the airborne lead dust that is usually generated during shooting into the sand, in one range, or rubber belts used in the other range has been effectively eliminated providing improved environmental health advantages.

- Test Lab Instrumentation

The new Tektronix Model 2520 multi-channel analog/digital storage scope is now in operation. This is an essential piece of instrumentation around which we hope to build a modern and effective test, measurement and data analysis capability. As stated above, we were able to learn a great deal about the O/U endurance life through multiple strain gauges that previously was beyond our capability with our old equipment. It is our intention to purchase additional instrumentation capability during '93 to build on what we've put in place and continue in further years maintain that capability.