

Jefferson Lab Alignment Group

Data Transmittal

| TO: J. Grames, M. Poelker, D. Machie | DATE: | 17 Jul 2007 |
|---|----------------|-------------|
| FROM: Kelly Tremblay | Checked: (jcd) | #: L1118 |

DETAILS:

The following is a description of how the center point and angle for laying out the new load lock gun in the injector was derived.

From results of transmittal L1117, the flanges labeled Gun2_Flg4 and Gun2_Flg6 were used to establish the existing or desired line of the new installation. Flanges NL_Flg1 and NL_Flg2 which are in the line of the north linac were used to calculate the intersection point. The values for the flanges and the intersection are shown below. The yaw of the load lock gun was determined to be -15.0216° with respect to the CEBAF coordinate system.

| Flange | Z (m) | X (m) | Y (m) |
|--------------|-----------|---------|---------|
| Gun2 Flange4 | -261.7063 | 80.7121 | 99.9982 |
| Intersect | -261.2905 | 80.6006 | 99.9988 |
| Gun2 Flange6 | -261.0556 | 80.5379 | 99.9992 |
| NL_Flg1 | -261.3818 | 80.6006 | 99.9988 |
| NL_Flg2 | -260.9974 | 80.6007 | 99.9987 |

