

**Monthly Report of the NSLS-II Magnet Production Status and Schedule Mitigation Plan
Reporting Period of 11/19/2011 – 12/17/2011**

December 19, 2011

Status Report

Tesla Engineering has fixed the coil potting difficulty within three weeks, and has begun the production of coils and catching up on the lost days of the coil fabrication. Also two new molds that are capable of potting eight coils each are now commissioned, enhancing the coil production rate by a factor of two and a half. They also added manpower so as to be ready for the rate production and delivery. They delivered 7 magnets during this period, some of them by airfreight on their expenses.

The delivery of magnets from IHEP, Beijing is still under suspension we thought they have more than 12 magnets ready to ship. Our expectation is that the shipment can resume in early January 2012.

Although production of the quadrupole magnet at BINP was somewhat slowed down, delivery of the magnets continued during this reporting period.

As of December 16, 2011, 32 multipole magnets were in transit from the overseas suppliers.

Status of the 35 mm Dipole Magnet

Good progress was made in the production of the 35 mm dipole magnets, and the production is almost on a routine basis. However, the continuing intervention by our man in Auckland, consultant Luke Adamson, continues to be important.

Status of the 90 mm Dipole Magnet

The fabrication of the stacking and bonding jig for the 90 mm dipole is finally complete. The laminations needed for the first production magnet are also on-hand. With these laminations, tests of the jig began with the hope of bonding one of the dipoles before the end of this year.

Magnet Production Summary

| | <i>Manufacturer</i> | <i>Units to be built</i> | <i>last updated</i> | <i>Yokes stacked</i> | <i>assemblies</i> | <i>received</i> | <i>accepted contractual</i> | <i>ready for girder</i> | <i>assembled on girder</i> | <i>% Complete</i> |
|----------------|---------------------|--------------------------|---------------------|----------------------|-------------------|-----------------|-----------------------------|-------------------------|----------------------------|-------------------|
| Quad-SC-S-W | Budker | 30 | 12/2/11 | 30 | 29 | 16 | 3 | 10 | 2 | 88.3% |
| Quad-SC-S-N | Budker | 30 | 12/2/11 | 30 | 24 | 10 | 3 | 6 | 2 | 83.2% |
| Quad-DC-L-N | Budker | 30 | 12/2/11 | 25 | 22 | 9 | 3 | 4 | 1 | 72.5% |
| Quad-DC-L-N | Budker | 30 | 12/2/11 | 24 | 20 | 8 | 2 | 3 | 1 | 68.8% |
| Quad-DC-S-N | TESLA | 90 | 12/15/11 | 36 | 10 | 9 | 3 | 5 | 2 | 23.4% |
| Quad-DC-S-W | TESLA | 30 | 12/15/11 | 12 | 5 | 5 | 4 | 3 | 2 | 22.2% |
| Sext-S-S-N | Danfysik | 169 | 12/5/11 | 117 | 102 | 71 | 53 | 41 | 5 | 62.0% |
| Sext-S-S-W | IHEP | 75 | 12/2/11 | 69 | 39 | 30 | 15 | 9 | 4 | 66.9% |
| Quad-LA | Buckley | 60 | 12/2/11 | 66 | 44 | 24 | 3 | 18 | 4 | 86.3% |
| Sext-LA | Buckley | 30 | 12/2/11 | 36 | 18 | 14 | 2 | 6 | 2 | 85.9% |
| Dipol-35 | Buckley | 54 | 12/2/11 | 7 | 4 | 3 | 2 | 0 | 0 | 9.7% |
| Dipole 90 | Buckley | 6 | 12/2/11 | 1 | 1 | 1 | 1 | 0 | 0 | 15.0% |
| Corr-100 | Everson | 102 | 12/5/11 | 102 | 85 | 79 | 43 | 65 | 3 | 88.4% |
| Corr-100-SQ | Everson | 30 | 10/13/11 | 16 | 12 | 12 | 12 | 2 | 2 | 43.7% |
| Corr-156 | Everson | 60 | 12/5/11 | 51 | 48 | 47 | 27 | 40 | 3 | 82.2% |
| SUMMARY | | 826 | 12/19/11 | 622 | 463 | 338 | 176 | 212 | 33 | 62.1% |

