Deviation Summary for LCLS Undulator Assemblies

The purpose of this form is to provide SLAC with a brief summary of deviations from drawings or specifications for each undulator assembly being delivered by ANL.

Undulator Assembly No. 3 Name of Assembly Organization: Hi-Tech Manufacturing Inc. ANL PO#: 5A-13624

No.	Deviation	Reported by	Reporting method	Disposition	Disposition by
1	(4) 5/16/-18 mounting holes on top of part are tapped M8.	Dial Machine, S. Lewis	Supplier Disposition Request #4	Rework and replace with 5/16-18 Helicoil inserts.	G. Lawrence
2	The outside diameter of the Strongback is 2.8 MM oversize.	Dial Machine, S. Lewis	Supplier Disposition Request #5	Accept as is.	G. Lawrence
3	The 11.050 mm location of one mounting pad is 11.055 mm.	Dial Machine, S. Lewis	Supplier Disposition Request #6	Dust mill to correct location.	G. Lawrence
4	The supplier has not provided certification that the forgings have been inspected or tested in accordance with ASTM B381 Grade F2 as required by section 4.1.1 of the SOW. The supplier has not provided certification that the forgings were annealed according to AMS-H-81200A or provided copies of the temperature profiles as required by section 4.1.2.2 of the SOW.	T. Barsz, LCLS QA	ANL Report of Nonconformance #473	Accept as is. Supplier unable to provide certification or reconcile in accordance with the SOW. The SOW calls for a forging made fron, the Dial's material was forged from a bar material and should have no effect. Accept as is.	G. Lawrence G. Lawrence
5	Permission to reduce the frequency of Pole inspection from 100% to every 5th Pole.	Hi-Tech , A. Volcheck	SDR 01	Reject at this time. Deviation was allowed following the acceptance of the first Article.	G. Lawence
6	Permission to control the position of the #6-32 tapped holes using a special "Go" Fixture.	Hi-Tech , A. Volcheck	SDR 02, 10-25-05	Accepted after visit by to review the fixture.	G. Lawrence, T. Barsz
7	Permission to perform final machining following annealing.	Hi-Tech , A. Volcheck	SDR 02, 11-2-05		

8	The supplier did not inspect the 6.00 +.00/-.05 dimension per ANSI Y14.5 M section 2.7.1.2(a). The supplier established one side of the size boundary using 3 coplanar pins instead of a flat surface and may have omitted the highest points from its measurement process. The supplier reported that the annealing process had caused the surface contacting the pins to become .004mm concave thereby adding to the measurement uncertainty.	T. Barsz, LCLS QA	ANL Report of Nonconformance 475	Accept as is. Supplier to use this lot of poles for its assembly of the LCLS Magnet Assembly and send the next lot of poles to Metalex after adding the flatness measurement mentioned below. Accept as is. Supplier to add a flatness meaurement to its CMM inspection program as a way of monitoring the measurement uncertainty introduced by the 3 pin method.	G. Lawrence G. Lawrence
9	Magnet number 1969 was damaged during assembly.	Hi-Tech, Simon	Email 6/22/06	Replace with magnet number 2033.	S. Saski