



**ANL QUALITY CRITERIA NONCONFORMANCE REPORT**

Report Status: Open

NCR No. 530  
 Division: ASD

**SECTION 1: DESCRIPTION (To be completed by Initiator)**

Group/Project: LCLS	Location: B401 B4192	System or Component Name: Aluminum Vacuum Chambers	
Drawing/Specification: L1440202-200010		Work Document/Purchase Order No. <b>NA</b>	Supplier: <b>AES Mechanical Engineering</b>
Quantity Received: 5	Number Inspected: 5	Number Nonconforming: <b>5</b>	

**NONCONFORMANCE DESCRIPTION**  
**Item No.**  
**Condition:** (Additional sheets may be used if necessary) (List Serial Numbers Where Applicable)  
 (1) Section 3.5 of the ESD requires no peaks over  $5 \times 10E-12$  for masses over 44. However the RGA Plots for vacuum chambers 37,41,45,46 do not show any data below  $1.0E-9$ . The RGA Plot for vacuum chamber 39 does not show any data below  $1.0E-10$ .  
 (2) The  $\leq .050$ mm straightness on vacuum chamber 41 was found to be .059mm and was accepted by M. Erdmann because it was only 9 microns (.0003") over the limit and there is enough tolerance in the assembly to not cause a problem.  
 (3) The 5.00 +/- .08 mm aperture height was found to be 5.118mm and was accepted by P. DenHartog.

**QUALITY ASSURANCE LEVEL (A, B or C):** **A**

**GROUP RESPONSIBLE FOR DISPOSITION:** LCLS

<i>T. Baroz</i>	2/7/2008
Initiator Signature*	Date
<i>G. Pile</i>	2/8/2008
Supervisor Signature*	Date
<i>T. Baroz</i>	2/7/2008
QAR Signature*	Date

**SECTION 2: DISPOSITION (To be completed by Responsible Group)**

- Reject   
  Rework   
  Repair (Justification Required)   
  Use-As-Is (Justification Required)  
 Scrap   
  Document Change   
  Return to Supplier   
  Other

**INSTRUCTIONS/JUSTIFICATION**  
**Item No.**  
**Disposition:** (Use one of the options noted above)  
 Accept 1,2,3 as is. There are no indications from any of the bakeout, HLT and outgassing data that the chambers do not meet the RGA requirement. Cannot redo the RGA at this time because the chambers have been packaged and are awaiting shipment. G. Wiemerslage to see that the next series of chambers have RGA Plots down to the  $1.0E-12$  scale.

Re-inspection required

Signature of person that provided disposition \* *G. Pile*      Date: 2/8/2008

\* Signatures not required if report is approved via email or the APS ICMS System

<b>Re-inspection Results (to be completed by person who performed re-insection)</b>	
Was reinspection acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No (enter new NCR number) _____	
Re-inspection Signature*	Date
Signature (Disposition/Actions Completed)*	Date
Signature (Facility/Program Manager)*	Date
Note: Facility/Program Manager signature only required if disposition is Use-As-Is or involved rework or acceptance criteria other than that originally specified.	
<b>SECTION 3: CAUSE AND CORRECTIVE ACTION (To be completed by Responsible Group or QAR)</b>	
<input type="checkbox"/> Training Deficiency <input type="checkbox"/> Equipment/Material Problem <input type="checkbox"/> Procedure Problem <input checked="" type="checkbox"/> Personnel Error <input checked="" type="checkbox"/> Design Problem <input checked="" type="checkbox"/> Management Problem <input checked="" type="checkbox"/> External Phenomena <input type="checkbox"/> Other (provide description below)	
<b>Cause/Root Cause:</b> The RGA requirements in the SLAC ESD appeared to be a carry-over from the SLAC Linac requirements and were felt to be too high for the Vacuum Chamber system. RGA data in the 10E-12 scale was not provided because RGA records for APS ID Aluminum Vacuum chambers showed that the data in the 10E-12 range to be inconclusive noise.	
<b>Corrective Action:</b> G. Wiemerslage to have SLAC revise the ESD RGA requirement or see that the next series of chambers have RGA Plots down to the 1.0E-12 scale	
<b>CORRECTIVE ACTION COMPLETED:</b>	
Signature (Responsible Group or QAR)*	Date

\* Signatures not required if report is approved via email or the APS ICMS System

(AES QA 3/05) (This report was generated from the AES Quality Assurance Database. Contact AES QA Tom Barsz at 620-252-9177 for details)