

Date:	12 Feb 2008
Refer to:	L080011-00
Subject:	Charge for AdL B-OSEM FRR Committee
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From:	Dennis Coyne

A Final Design Review (FDR) and Fabrication Readiness Review (FRR) for the advanced LIGO Suspension system component called the B-OSEM (Univ. of Birmingham design of the Optical Sensor and Electro-Magnetic actuator) is underway. As review committee members you should be aware of the following planned dates:

- committee telecon to discuss questions on the documentation/design scheduled for Fri 2/15, 8-9 am PT (1-800-704-9896, 507045#)
- Telecon with design team scheduled for Fri 2/29, 8-10 am PT (1-800-704-9896, 507045#)

The documentation under review can be found at this web site:
<http://www.sr.bham.ac.uk/dokuwiki/doku.php?id=bal>
and consists of the following:

Design, Assembly & Test Documents

- [t050111-02-k.pdf](#) - Design Document & Test Report
- [t060233-01-k.pdf](#) - Assembly Specification
- [t070107-01-k.pdf](#) - Test Specification
- [t060137-01-k.pdf](#) - Design Change Log

DCN & Drawing Tree

- [e060262-02-k.pdf](#) - Document Change Notice
- [e060243-c-k.pdf](#) - Drawing Tree

Drawings

- [d060218-c-k.pdf](#) - NOISE PROTOTYPE OSEM ASSEMBLY
- [d060216-c-k.pdf](#) - IRLED ASSEMBLY
- [d060217-c-k.pdf](#) - PD ASSEMBLY
- [d060106-c-k.pdf](#) - COILFORMER
- [d060107-c-k.pdf](#) - BACKPLATE
- [d060108-c-k.pdf](#) - CLAMP
- [d060109-c-k.pdf](#) - ADJUSTER SHAFT
- [d060110-c-k.pdf](#) - ADJUSTER NUT
- [d050435-c-k.pdf](#) - FLEXI-CIRCUIT
- [d060112-c-k.pdf](#) - PD CARRIER
- [d060117-c-k.pdf](#) - PD SLEEVE
- [d060114-c-k.pdf](#) - PD RETAINER
- [d060111-c-k.pdf](#) - IRLED CARRIER
- [d060113-c-k.pdf](#) - IRLED RETAINER
- [d060115-c-k.pdf](#) - IRLED LENS RETAINER
- [d060116-c-k.pdf](#) - IRLED SLEEVE

3D CAD

- [d060218-osem-assembly.easm](#) - OSEM Assembly eDrawing (requires [eDrawings](#) viewer)

If anyone has trouble accessing these documents, please let me know.

The following review committee charge has been developed with the [Guidelines for AdL Construction Activities \(M050220-05\)](#) in mind, but tailored to this review:

- a) If there are any changes to the OSEM requirements, are these changes well motivated and appropriate?
- b) Are the actions from the preliminary design review resolved?
- c) Are the lessons learned from the prototypes documented and appropriately handled in any proposed design modifications in the final design?
- d) Is the final design fully documented and ready to proceed into production, in particular:
 - a. Is there a complete set of drawings and specifications ready to release into configuration control?
 - b. Is the proposed quality assurance and testing approach, to assure conformance with key performance requirements/specifications, adequate?
 - c. Are the interfaces defined and is the design consistent with these interface definitions?
- e) Is the number of OSEMs to be procured sensible given the intended number of delivered units and the expected need for in-process spares?

Note that cost, schedule, long lead procurement, and procurement strategies are not part of this review, since they have been handled separately by RAL management.