

## **Reviews during OJEU purchase process at RAL**

Justin Greenhalgh, Ian Wilmut, Dennis Coyne  
October 2007

This note records agreement in a face to face discussion at RAL on 26 Oct 2007.

### **1. THE OJEU PROCESS**

We are launching four OJEU actions, each of which may be considered to have three phases. The four actions are

- 1 – Blades;
- 2 – Weldments (upper structure and sleeve of ETM/ITM)
- 3 - Large machining (lower structure, FM/BS structure etc)
- 4 - Small machining (masses, etc)

The three phases (for the purposes of this note) are

- A – pre-qualification
- B – tender/contract action for ETM/ITM
- C – tender/contract action for FM/BS

The earliest dates for the various items are in the addendum (email from Catherine Tomlinson); we can delay if we need but within limits which are not well defined of order ~3 months max.

In what follows we cite two critical dates for phase B of each of the four actions: the earliest date at which we can issue the call for tenders (to get final prices) and the earliest date on which we can sign contracts.

### **2. THE REVIEW PROCESS**

Formally, the LIGO review process calls for all the LASTI testing to be complete before a FDR could be held. This was not practicable in our case and an ad-hoc procedure would be required. It was agreed that Dennis would convene a group of “wise heads” who could be drawn upon selectively as review is required. This process would include the Glasgow and Birmingham work but in this note we address only the RAL-based OJEU parts.

### **3. DCC APPROVALS**

Dennis was happy to be presented with a DCN for the final DCC drawings before the contracts are signed. There will be about 150 drawings but he will not be checking them for assembly issues; rather he will distribute to others checks on interfaces, overall length etc.

### **4. RISKS**

(Not discussed explicitly at meeting on 26 Oct but inserted later by RJSG)

With reference to section 6 of M070100-01 which considered risk-reduction measures in the OJEU process, we note that

- The natural-frequency tests will be done before we go to tender on the structures.

- The glass assembly test and the heating test will not be done before we place contracts but the risks in both cases are considered to be low (low probability and low impact) and acceptable in order to make progress on spending the money to profile.

## 5. ETM/ITM

### 5.1 Blades (2 Nov/19 Jan)

No further review is needed before issue of tender.  
Some review required before we sign contracts.

### 5.2 Weldments (30 Nov/9 Feb)

Dennis will vet the tender documents, no other review before issue of tender. Ian to confirm whether it would be acceptable to decide not to make the sleeve after the call for tenders. If that would be a problem, we must delay the call until LASTI tests confirm.

Dennis will confirm LIGO's position on use of weldments by 20<sup>th</sup> November. (This just may be to veto all use which would require redesign and ISI/ETF testing of bolted structure.)

Some review required before sign contracts.

### 5.3 Large machining + small machining (10 Dec/23 Feb)

No further review before issue of tender  
Some review required before signing of contracts.

### 5.4 Review dates

We agreed that a review would be held in mid-January. By inference, this will include the DCN review of the drawings. The review will take note of any lessons learned from LASTI at that time.

## 6. FM/BS

In principal Dennis was persuaded by the arguments about natural frequencies of structures and the tests we have done. We agreed to hold a semi-formal rehearsal of the arguments (numbers all written down) at a convenient DM slot (target 6 Nov), to ensure that when a real review takes place we do not find any nasty surprises.

Ian and Joe will be pushing to get the design complete and push through the tenders etc ASAP.

## 7. ADDENDUM – TIMETABLE

	<b>Blades</b>	<b>Weldments</b>	<b>Large Machining</b>	<b>Small Machining</b>
PQQ request period (min 30 DAYS)	42	49	45	45
PQQ completion time (min 2 WEEKS)	3	3	3	3
PQQ evaluation time (WEEKS)	3	4	4	4
Tender completion time (min 35 DAYS)	47	40	44	44
Tender evaluation time (WEEKS)	3	3	3	3
Advert sent	10-Aug-07	24-Aug-07	07-Sep-07	07-Sep-07
PQQ request deadline	21-Sep-07	12-Oct-07	22-Oct-07	22-Oct-07
PQQ respond deadline	<b>12-Oct-07</b>	<b>02-Nov-07</b>	<b>12-Nov-07</b>	<b>12-Nov-07</b>
Tender issue date	02-Nov-07	30-Nov-07	10-Dec-07	10-Dec-07
Tender return date (WEDNESDAY)	<b>19-Dec-07</b>	<b>09-Jan-08</b>	<b>23-Jan-08</b>	<b>23-Jan-08</b>

Standstill start (indicative)	09-Jan-08	30-Jan-08	13-Feb-08	13-Feb-08
Standstill finish (indicative)	19-Jan-08	09-Feb-08	23-Feb-08	23-Feb-08