

# Review Response

This document is a response to the review of the Bubble Chamber performed on August 18, 2015 to evaluate the readiness of the bubble chamber test experiment in the CEBAF Injector. We wish to thank the committee members for taking the time to provide us with a very useful and detailed review. This document we will address the comments and recommendations of the committee and do so item by item.

## 1 Comments

In this section we respond to the comments made by the committee.

Comment 1: typo has been addressed.

Comment 2: A conduct of operations has been developed and is a section in the procedural document. Note that the procedural document is a number document in the Gillette document database (TGT-PROC-15-001).

## 2 Recommendations

### 2.1 Recommendation 1

A pretest verification checklist was added to the procedural document TGT-PROC-15-001.

### 2.2 Recommendation 2

The immediate area surrounding the bubble chamber shall be roped off cones and tape. Signage stating "TEST IN PROGRESS PLEASE DO NOT DISTURB" shall also be posted.

### 2.3 Recommendation 3

A call list has been added to the conduct of operations section of the procedural document TGT-PROC-15-001.

### 2.4 Recommendation 4

Riad Suleiman has prepared a short presentation for the office staff which shall be given on September 9, 2015. Following the presentation there will be a brief tour of the Injector and ISB.

### 2.5 Recommendation 5

A fan has been installed to promote mixing in the injector. Fan has a low-speed setting of 1300 cfm. The fan shall be used during all filling and venting operations.

### 2.6 Recommendation 6

Section 6.1 of the TOSP has been updated to show the expected concentration of N<sub>2</sub>O and C<sub>2</sub>F<sub>6</sub> following a complete release of all fluid in the bubble chamber. The section now contains exposure limit information as well.

## **2.7 Recommendation 7**

The TOSP form has been updated.

## **2.8 Recommendation 8**

The TOSP and THA have been updated to reference the procedure TGT-PROC-15-001. This procedure has been filed in the JLAB document repository. Revision number of this document is "original".

## **2.9 Recommendation 9**

Unfortunately, at this time the only person qualified to perform the complicated tasks on the system is Brad DiGiovine.

## **2.10 Recommendation 10**

A representative from the test collaboration shall be present at the 8 AM meeting in the MCC to discuss progress and future work plans.

## **2.11 Recommendation 11**

An electronic logbook has been set up for the bubble chamber testing. An existing ATLI describing the work on the bubble chamber and updates to the workplan is also available.

## **2.12 Recommendation 12**

A conduct of operations document is now part of the procedural document TGT-PROC-15-001. Note that this document includes contact information as well.

## **2.13 Recommendation 13**

There is indeed no expectation of significant radiation that could cause activation of equipment or material during the test. A document including a statement by the RadCon group indicating this shall be posted in the test area.