

Memo

Date: October 26, 2007

To: D. Lowenstein

From: P. Bergh, ALARA Committee Chair *P. Bergh 10/26/07*

Subject: **PROPOSED C-A FY 2008 COLLECTIVE DOSE GOAL**

The C-A ALARA Committee met to review the department's collective exposure for FY'07 against the "as run" operating schedule and to develop a collective dose goal and individual Administrative Control Level (ACL) for FY'08.

The FY'07 collective dose has been less than 73% of the ALARA dose goal. This is primarily a result from the lower collective dose accrued by C-AD personnel during the RHIC operating months. The collective dose received from March through June was below the ALARA dose goals established for those months. This is attributed to fewer machine breakdowns requiring repair in higher dose rate areas.

The FY'08 model used to predict exposure for both operations and maintenance is as follows:

$$\text{Annual Dose Goal (Person-mrem)} \\ \leq A*250 + B*250 + C*100 + D*150 + E*75 + F*150 + G*150$$

Where:

- A = no. of equivalent HEP program months in FY
- B = no. of g-2 program months in FY
- C = no. of RHIC and NSRL program months in FY
- D = no. of months of u-line experiments in FY
- E = no. of Booster maintenance months in FY
- F = no. of AGS/BLIP maintenance months in FY
- G = no. of months for beam line disassembly

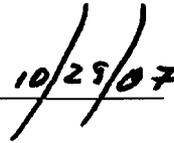
Based on the current operating schedule for FY'08 (attached) **the recommended C-A dose goal for FY'08 is 1.5 person-rem.** This assumes 7 months of RHIC and NSRL operation and 5 months of maintenance.

A review of the individual dose for FY'07 indicates that the collective dose was distributed well among individual radiological workers. As in the past, the C-A individual Administrative Control Level (ACL) for FY'08 will be 1 rem/person.

The C-A ALARA committee met on 10/19/07 to review these issues and concurs with the above proposed dose goal and individual ACL for FY'08. Your concurrence is requested so that I can transmit them to the BNL ALARA Coordinator.

RP6269SR.07

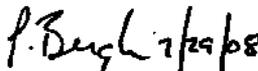
Attachment C-A Operations Schedule for FY' 08

Concurrence:  Date: 
D. I. Lowenstein
C-A Department Chairman

Memo

Date: July 29, 2008

To: D. Lowenstein 

From: P. Bergh, ALARA Committee Chair  7/29/08

Subject: Revised C-A FY 2008 COLLECTIVE DOSE GOAL

The C-A ALARA Committee met to review the department's year-to-date collective dose for FY'08 against the "as run" operating schedule. The C-A FY 08' collective dose as of May 31st is 1.17 person-rem. The FY' 08' ALARA dose goal is 1.5 person-rem.

The FY'08 model used to predict exposure for both operations and maintenance was as follows:

$$\text{Annual Dose Goal (Person-mrem)} \\ \leq A*250 + B*250 + C*100 + D*150 + E*75 + F*250 + G*250$$

Where:

- A = no. of equivalent HEP program months in FY
- B = no. of g-2 program months in FY
- C = no. of RHIC and NSRL program months in FY
- D = no. of months of u-line experiments in FY
- E = no. of maintenance months in FY
- F = no. of AGS/BLIP maintenance months in FY
- G = no. of months for beam line disassembly

The collective dose for the initial eight months of this fiscal year is 78.4% of the ALARA dose goal. Nearly half the collective dose for FY 2008 was received during the removing and replacement of a 5' section of pipe at J-17. This work was unscheduled and not incorporated into the FY 2008 collective dose goal.

Based on the remaining schedule and planned maintenance tasks a revised FY 08' C-A dose goal of 1.8 person-rem is recommended. This revised collective dose goal represents a 20% increase from the original goal and will provide a more realistic and challenging goal for the remainder of the fiscal year.

The C-A ALARA committee met on 7/24/08 and concurs with the above revised dose goal. Your concurrence is requested so that I can transmit this to the BNL ALARA Coordinator.

RP6269SR.08

Concurrence:  Date: 8/1/08
D. I. Lowenstein
C-A Department Chairman

Memo

Date: *July 29, 2008*

To: *C-AD ALARA Committee*

From: *P. Bergh, ALARA Committee Chair*

Subject: **C-A ALARA committee meeting minutes for the review of FY 2008 dose reports.**

The mid-year ALARA committee meeting was held on 7/24/08.

In attendance: Ed Lessard, Ray Karol, Joel Scott, Peter Cirnigliaro and Paul Bergh.

The following facts were presented:

- As of May, TLD reports indicate a collective dose of 1.17 person-rem for FY 2008. The previously established dose goal for FY 2008 is 1.5 person-rem.
- The collective dose for the initial eight months of this fiscal year is 78.4% of the ALARA dose goal. Nearly half the collective dose for FY 2008 was received during the removing and replacement of a 5' section of pipe at J-17. This work was unscheduled and not incorporated into the FY 2008 collective dose goal.
- The high individual dose for this calendar year as compared to recent years:

CY' 08	50 mrem (Jan.- May)
CY'07	168 mrem
CY'06	123 mrem
CY'05	151 mrem
CY'04	419 mrem
- Area TLD monitoring results for CY' 07 demonstrate compliance with C-AD Safety Envelope Limits. Based on area TLD results, a dose in excess of 25 mrem to an individual in other BNL Departments or Divisions, from C-AD operations, is considered unlikely.

The committee agreed that the current ALARA collective dose goal of 1.5 person-rem for FY' 08 needed to be revised mid-year so that the dose received during the unscheduled work at J-17 could be incorporated into the revised goal. Based on the remaining

schedule and planned maintenance tasks **a revised FY 08' C-A dose goal of 1.8 person-rem was recommended and approved by the C-AD Department Chairman.** This revised collective dose goal is 20 % higher than the original goal and will provide a more realistic and challenging goal for the remainder of the fiscal year.

The committee agreed that based on a recommendation from the BNL ALARA committee, C-AD will begin in 2009 setting a calendar year collective dose goal instead of a fiscal year collective dose goal. At the end of this fiscal year, the C-AD ALARA Committee will meet to set an interim dose goal for the months October through December and a second dose goal for CY 2009.