Idaho National Laboratory

RTC/STC/CFA

CY-2008 ALARA Summary

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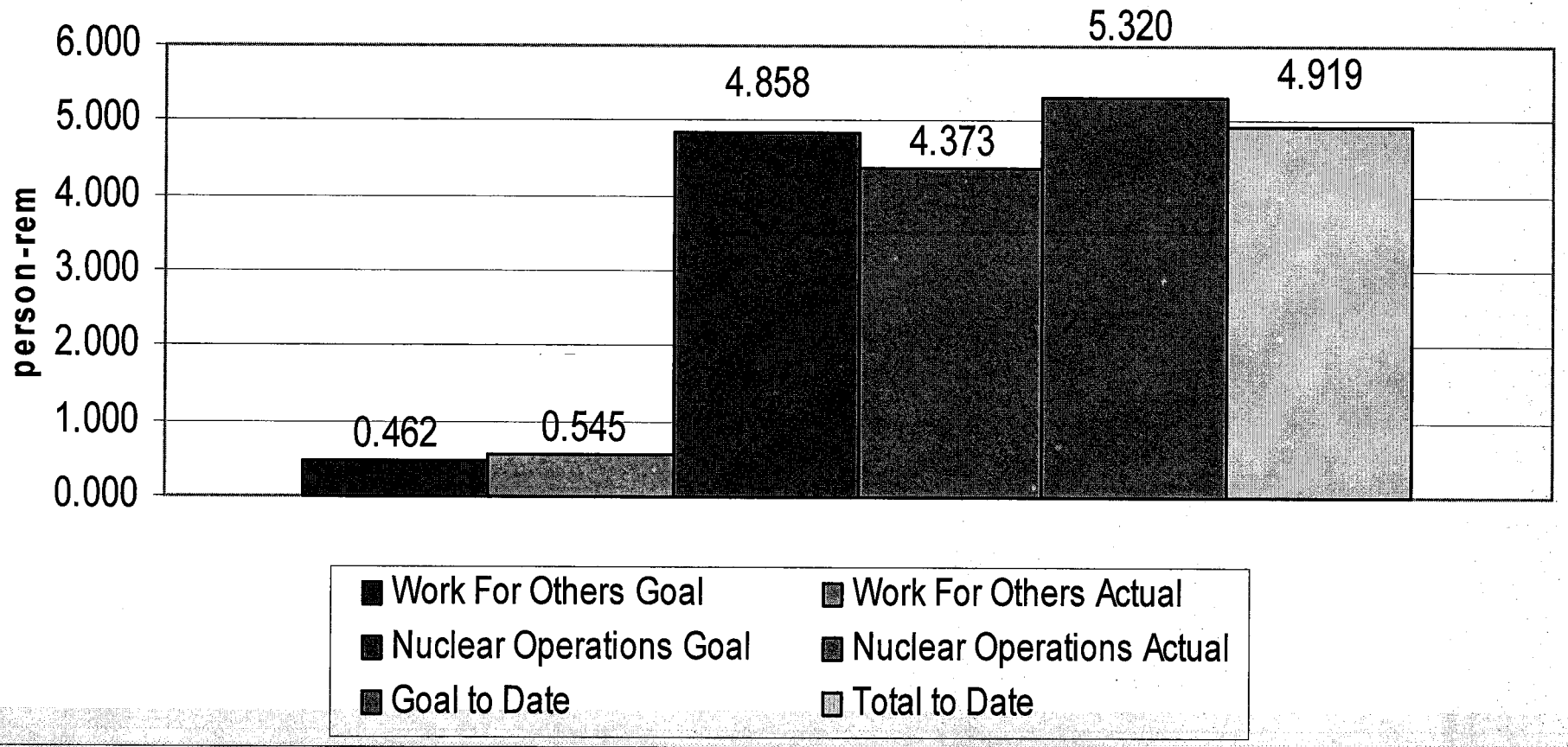
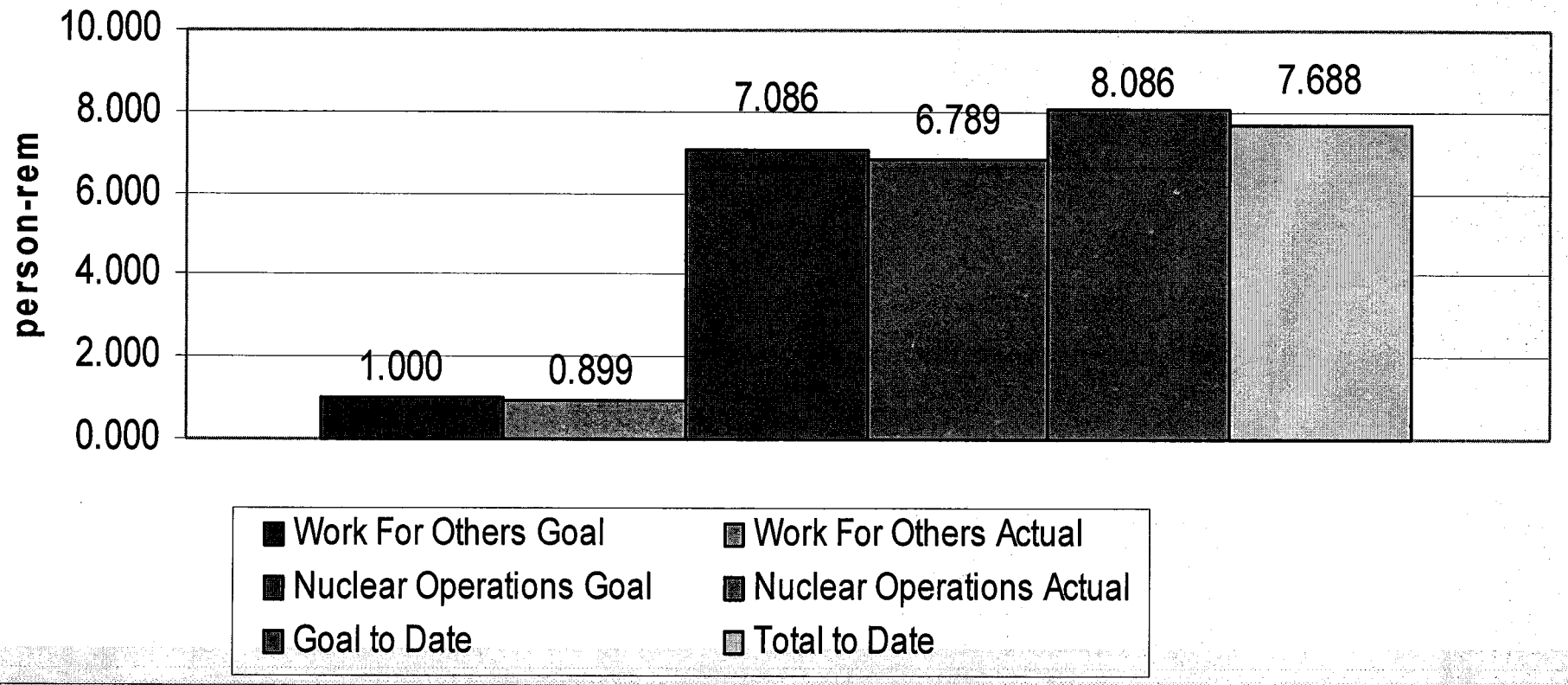
RTC/STC/CFA/CITRC CY-2008 2nd Quarter Dose Distribution and Tracking (Rev. 1)

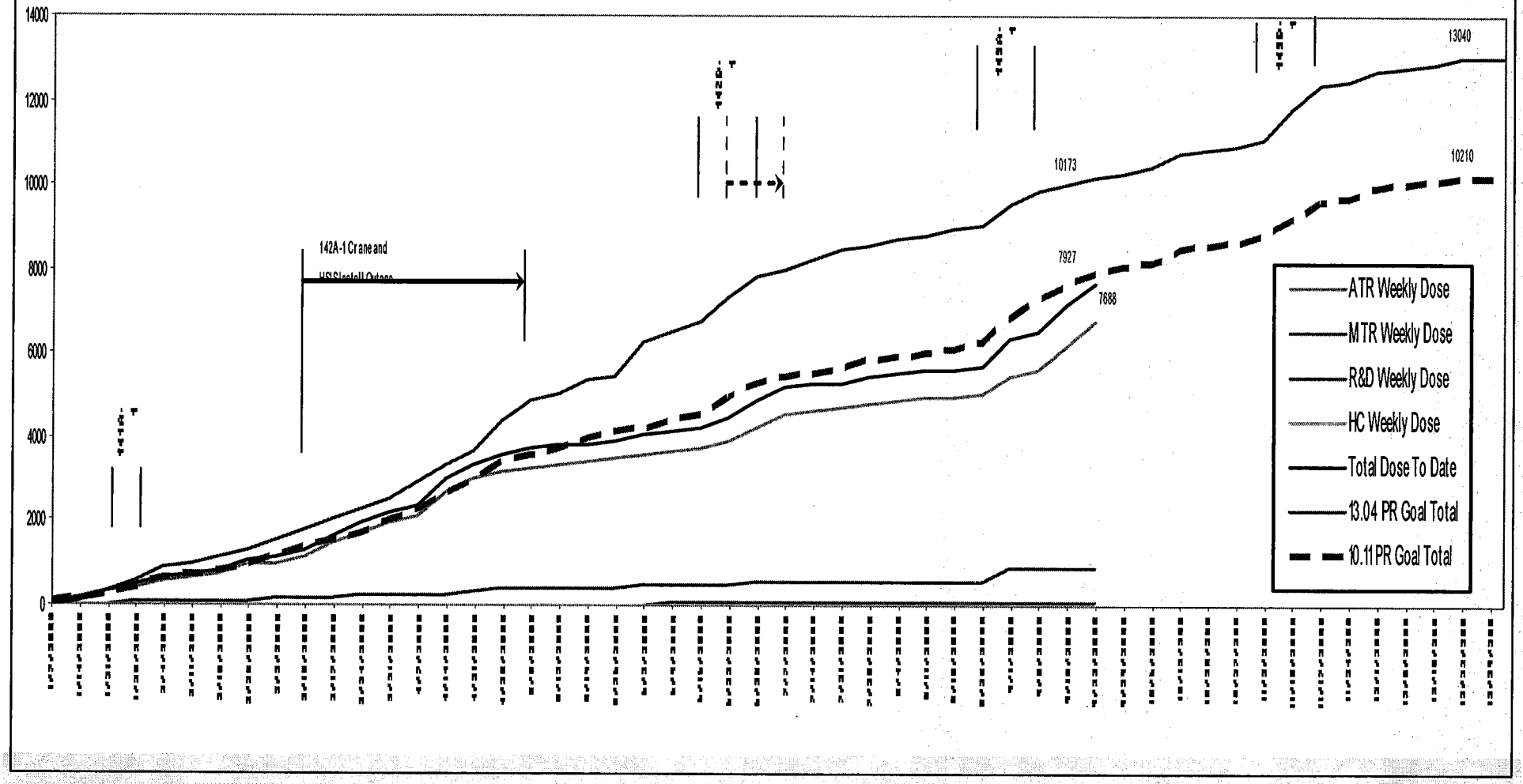


RTC/STC/CFA/CITRC CY-2008 3rd Quarter Dose Distribution and Tracking (Rev. 1)

Through 9/21/08



RTC/ STC/ CFA/ CITRC Cummulative Dose CY-2008 (Electronic Dosimeter Dose to 9/ 21/ 08)



2008 Goal Adjustments

CFA/CITRC/REC -420 mrem

•First full year of PINS/Neutron Generator work off-site. Facility design reduced neutron dose by 85%. (-100 mrem)

•TSG radiological training had fewer sessions than originally estimated.(-320 mrem)

ATR complex R&D Labs -290 mrem

•Lower RCT dose due to reduced footprint of labs and minimal exposure to neutron radiation. (-70 mrem)
•Increased dose to lab workers while relocating equipment to other labs. (+50 mrem)
•Cf-252 transfer completed with minimal dose, but additional transfers scheduled for lab hot cells. (-200 mrem)
•Minimal dose received for Americium Oxididation and Separations and for Recovery of Ac-225. (-45 mrem)
•Less work than anticipated for DARPA and Xenon/Iodine Processing, and no APU analysis scheduled. (-75 mrem)
•Increased dose for processing flux wires to reduce backlog. (+50 mrem)

2008 Goal Adjustments

ATR Complex Hot Cell -125 mrem

•Minimal staffing and maintenance, reduced surveillance. (-125 mrem)

ATR Complex Experiment Programs -1915 mrem

•Loop reactivation activities for year completed at 65% of anticipated dose. (-65 mrem)

•TMIST experiment installed and in operation for 37% of anticipated dose, dry transfer cell activation work added on to this project. (-60 mrem)

•HSIS Rabbit installation and testing approximately 37% of anticipated due to successful dose reduction during canal work. (-1100 mrem)

•Loop radiation monitoring system replacement completed below expected dose, but troubleshooting still to be completed. (-50 mrem)

• Fewer loop resin changes than planned into the estimate. (-40 mrem)

•Updated estimate for loop heater replacements as plan was unavailable at establishment of original goal. (150 mrem)

•Less than anticipated corrective maintenance on loop systems and valves. (-750 mrem)

2008 Goal Adjustments

ATR Operations and Outages -80 mrem

•No dose recorded for 40-Ton crane trolley replacement and lower than expected dose rates for replacement of the M-112 Ion Exchange Tank. (-90 mrem)

•Dose for routine operations at power are accumulating at a lower rate than the estimate was based on. (-130 mrem)

•Rate of canal waste sizing & disposal affected by other activities in the canal.(-110 mrem)

•Reduced footprint for RCT surveillance, but increased support for deactivation of facilities in the outer areas, and increased activities at ATRC and NMIS. (+20 mrem)

•Increased handling of irradiated materials during outages due to bulkhead issues and preparatory work for HSIS installation. (+100 mrem)

•Increased surveillance and reactor top operations due to equipment failures and retrieval of equipment, including an unplanned entry in-tank. (+500 mrem)

2008 Goal Adjustments

ATR Operations and Outages (continued)

•Increased RCT surveillance during extended outages, and more high radiation work than anticipated in the original estimate. (+200 mrem)

•Minimal entries into loop cubicles/ reduced dose to chemists during outages. (-250 mrem)

•Less dose than anticipated for routine preventive maintenance, and less average dose for corrective maintenance during outages as previous years. (-500 mrem)

Total Adjustments to the Goal	-2830 mrem
Original Goal	13040 mrem
New Goal for ATR Complex/CFA/CITRC/REC	10210 mrem

2008 Performance

HSIS Rabbit system installed for approximately 38% of original estimate due to effective pre-work source reduction activities, with no spread of contamination while the canal water level was lowered 8-9 feet.

Radiological Events:

- *2 non-reportable particle event*
- *2 non-reportable spills – M-6 Primary Pump Seal Leak, Rod Access Valve Leak*
- *4 non-reportable clothing contamination events*
- *2 reportable clothing contamination events*

2008 Performance

Highest Exposed Individual – 152 mrem, 148 mrem TLD (BEA RCT Supporting ATR)

No individuals expected to need extensions above the ACL