

Memo

Date: July 19, 2004
To: Distribution
From: Peter Cirnigliaro
Subject: Performance Indicators For C-A Department For The Second Quarter of CY04

The following quarterly performance indicators are distributed to all C-AD managers, supervisors and workers. If you have specific questions about the data, please contact Ray Karol, Ed Lessard or myself.

The collective dose (1.2 person-rem) indicated in Table 1 is for Q1CY04.

There were no DOE reportable occurrences in Q2CY04. Four critiques of non-reportable events at C-AD were performed in Q2CY04, see Table 4.

Two Recordable Injury/Illness Cases were reported for Q2CY04, excluding sports related cases. The 12-month rolling Recordable Case Rate is 1.99 per 100 FTEs. One lost work case occurred in Q2CY04. The worker was out for 11 days as a result of a back injury due to overexertion during manual lifting of materials. The 12-month rolling Days Away and Restricted Time (DART) case rate is 0.76 per 100 FTEs.

A new [occupational safety and health management system](#), modeled after an international system (OHSAS 18001), was established at C-AD to help ensure a safe and healthy workplace is provided to all employees, visitors, users and subcontractors. The new management system standardizes the evaluation of risk and control of hazards in the workplace. The objective of the system is to provide a risk-based approach for identifying and controlling hazards to prevent work-related accidents, injuries, and illnesses. This management system is currently applicable to three BNL pilot organizations (Collider-Accelerator Department, Central Fabrication Services Division, and the Plant Engineering Division). The state of implementation of the system at C-AD is approximately 70% complete at this time. An operational readiness review will be performed by an outside auditing firm (NSF) on July 27, 28 and 29, 2004. NSF also performs the ISO 14001 audit for the Laboratory and the audit process will be a familiar one. The full registration audit of the complete OHSAS 18001 system is scheduled for September 22 through 24, 2004.

TABLE 1, C-A DEPARTMENT PERFORMANCE INDICATORS

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	1-1-04 to 6-30-04
<u>Whole-Body Collective Dose (person-rem)</u>	25	27	48	82	85	39	43.8	12.2	13.3	11.1	21.9	3.8	1.2¹
Skin and Clothing Contaminations	0	0	0	0	0	0	1	0	0	0	1	0	0
Internal Contamination	0	0	0	4	0	0	0	0	0	0	0	0	0
Radioactive/Hazardous Materials Overexposures	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Away and Restricted Day Rate (# per 100 FTEs)	2.9	2.2	1.5	2.1	1.2	1.2	3.4	2.2	0.8	0.23	1.16	0.49	0.76
1. Cases	11	8	5	7	4	4	12	8	4	1	5	2	3
2. Total Hours Worked in Year (1000s)	773	741	651	674	666	663	700	741	995	867	864	821	392
Recordable Injury/Illness Rate (# per 100 FTEs)	5.4	4.1	4.9	4.2	2.4	3.3	4.8	3.0	1.2	1.61	2.08	1.21	1.99
1. Cases	21	15	16	14	8	11	17	11	6	7	9	5	6
First Aid Cases Excluding Athletic Injuries	-	-	-	-	-	-	-	-	17	16	19	12	3
Unplanned Safety Function Actuations	1	3	1	0	0	0	0	0	0	0	0	0	0
Violations of Operating Procedures	0	0	3	1	0	0	0	0	0	0	0	0	0
Unplanned Shutdowns	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Occurrences</u>	4	10	7	5	4	3	4	1	0	2	1	2	2
Occurrences With Open Corrective Actions	1	2	1	1	0	1	1	1	0	2	0	0	0
Environmental Related Occurrences	2	4	3	1	1	0	1	0	0	0	0	0	0
Solid Low-Level Waste Shipped													
1. Radioactive Waste (cu-ft)	6354	2089	1742	2543	7018	6642	1494	624	1642	2719	1624	2578	947
2. Hazardous Waste (cu-ft)**	16	6.0	47	26	24	51	14.5	16.1	91.4	32.4	105	69.5	61.7
3. Mixed Waste (cu-ft)**	4	140	39	6.8	38	117	0	18.75	40.3	21.6	1400	53.2	7
4. Industrial Waste (cu-ft)**	-	-	-	-	-	-	-	179.4	220.4	445.5	42135	919.5	265

** Assumes 64 lbs./ft³.

1- Dose shown is for Q1CY04

TABLE 2, C-A OSHA-TYPE DEFICIENCIES FOUND DURING TIER 1 INSPECTIONS

OSH Category	Definition of Category	Number of Deficiencies For 1998	Number of Deficiencies For 1999	Number of Deficiencies For 2000	Number of Deficiencies For 2001	Number of Deficiencies For 2002	Number of Deficiencies For 2003	Number of Deficiencies For 1-1-04 to 6-30-04
General Safety	Inadequate lighting, inadequate aisle-ways, trip hazards in walkway, load ratings not posted, missing floor or ceiling tiles, broken hardware on doors, windows or machines, exposed building insulation, overdue inspection on cranes, hoists and elevators, lack of toe-boards or improper railings.	154	89	170	56	51	56	39
Electrical Safety	Inadequate breaker panel labels, exposed conductors, missing grounds, GFCI not used where needed, knockouts missing on breaker boxes and disconnects, blocked breaker boxes or blocked disconnects.	82	60	96	61	78	70	73
Housekeeping	Poorly organized areas, excessive fire loading from boxes, plastic and packing materials or storage on top of cabinets.	37	22	41	25	25	21	19
Chemical Safety	Improper gas-cylinder storage, improperly labeled or unlabeled hazardous materials, improper storage of hazardous materials.	36	34	71	23	43	33	17
Fire Protection / Life Safety	Excessive storage of flammables, blocked exits, missing or non-functioning exit sign, damaged or broken fire protection / fire detection systems, or overdue extinguisher inspections.	73	38	16	20	41	49	30
Working Environment	Evidence of smoking or eating in work areas where prohibited, inadequate lighting or ventilation, heat stress, high noise and no posting or ear protection where required.	0	0	0	24	66	50	37
Radiation Safety	Survey instruments out of calibration, radiation barriers or other controls in poor condition or poorly maintained posting.	1	6	12	7	10	12	0
Personnel Protection	Broken machine guards, not wearing personal protective equipment when required; for example, lack of safety glasses.	31	25	36	10	12	12	17
Unsafe Practices	Using broken or damaged tools or ladders, parking in no-parking areas, going the wrong way down one-way streets, not wearing a TLD badge or dosimeter when required, climbing without fall protection, failure to tie down ladders, or using cable tray for climbing.	0	1	1	1	0	0	0
Outside & Grounds	Overgrown walkways, dilapidated or poorly maintained walkways and improper storage outdoors.	4	2	4	6	4	11	1
Other	Leaking containers or piping, improper air emissions, unlabeled sinks, unlabeled containers, improperly controlled satellite areas for waste.	1	4	2	5	13	5	6

**TABLE 3,
COMPLETION PERCENTAGE OF REQUIRED TRAINING FOR C-A EMPLOYEES**

Time Period	Number of Requirements	Total Incomplete	Percent of Required Training Complete
Q4 CY 99	5236	1036	80
Q1 CY 00	4530	1233	73
Q2 CY 00	4757	913	81
Q3 CY 00	4754	241	95
Q4 CY 00	5174	531	90 (CY00 Average = 85%)
Q1 CY 01	5814	534	91
Q2 CY 01	5782	190	97
Q3 CY 01	5837	161	97
Q4 CY 01	6639	379	94 (CY01 Average = 95%)
Q1 CY 02	6859	236	97
Q2 CY 02	6980	148	97
Q3CY 02	7016	170	98
Q4CY 02	7196	233	97 (CY 02 Average = 97%)
Q1CY 03	7235	283	96
Q2CY03	7232	278	96
Q3CY03	7255	331	95
Q4CY03	7650	287	96 (CY 03 Average = 96%)
Q1CY04	8044	64	99
Q2CY04	8197	114	99

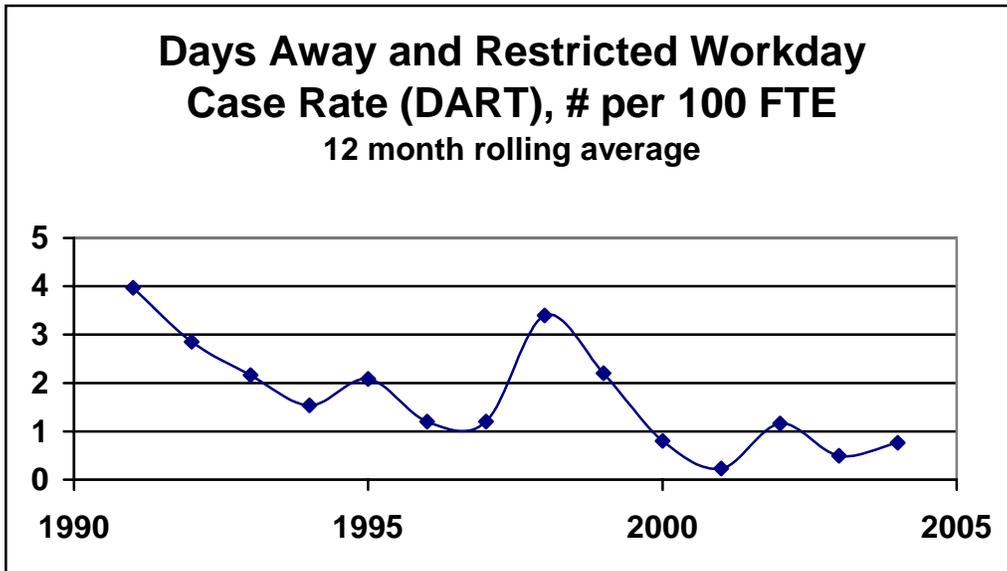
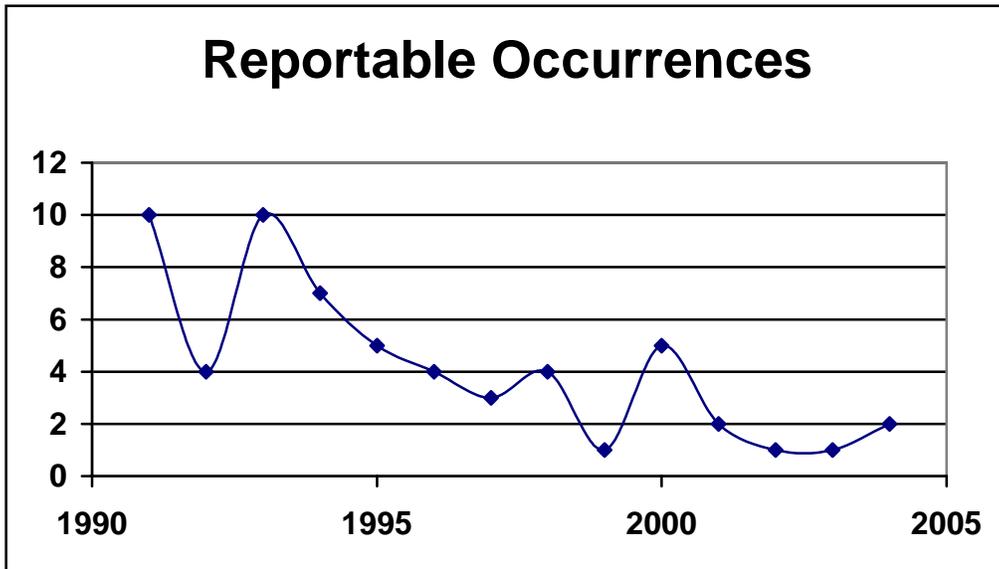
TABLE 4,
CY04 CRITIQUES OF C-AD EVENTS

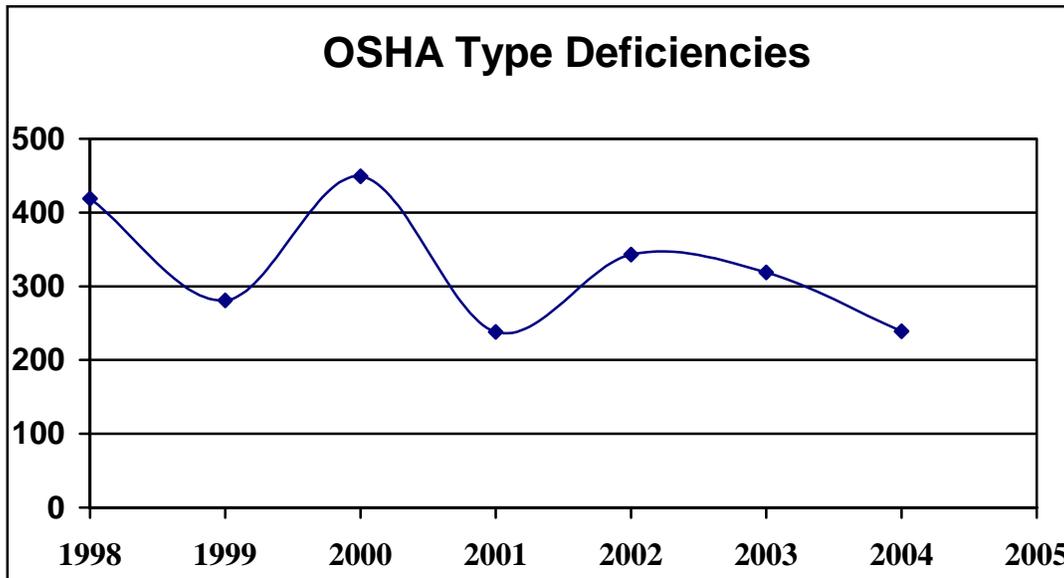
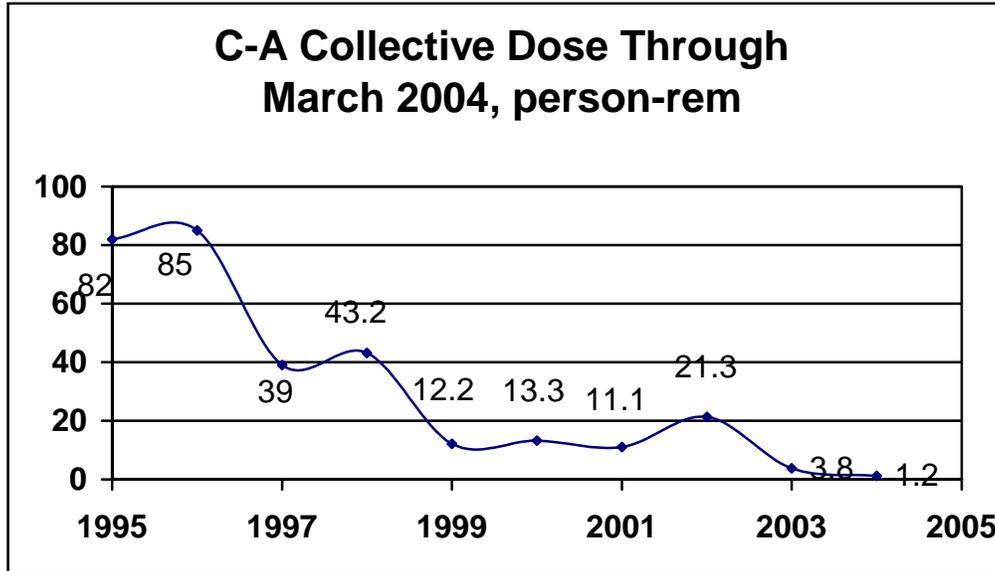
Worker Injures Ankle After Slipping on Walking Surface, 1-23-04
Ground Fault Due to Inadequate Clearance for Wiring, 3-09-04
Welder's Helper Injures Eyes, 3-24-04
Load Falls Off Truck During Transport, 3-27-04
Anomaly at NSRL During Access, 4-14-04
Failed Relay Causes Excess Heat, 5-5-04
Equipment Falls From Man-Lift, 5-17-04
Cl-39 Contamination from Atlas Experiment, 6-1-04

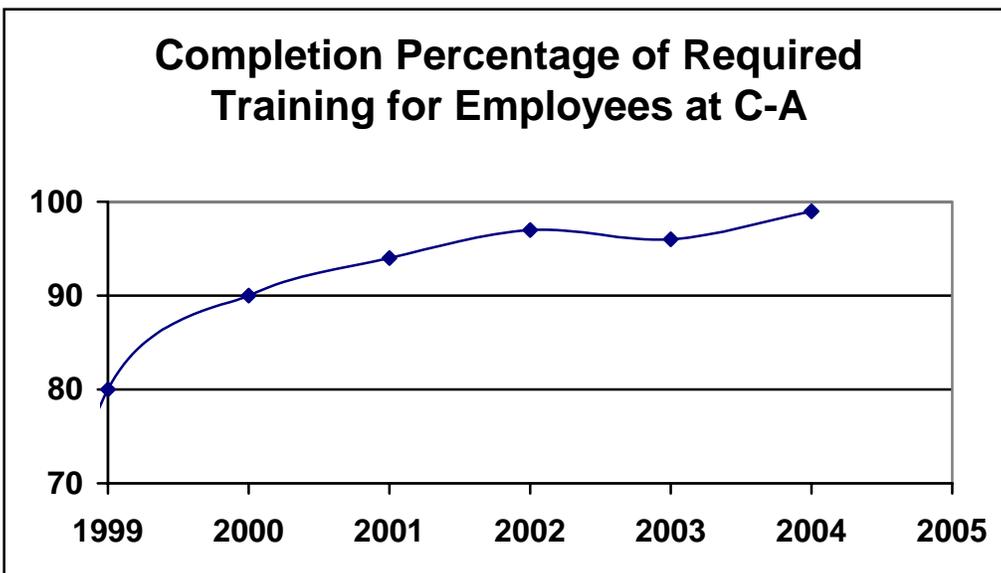
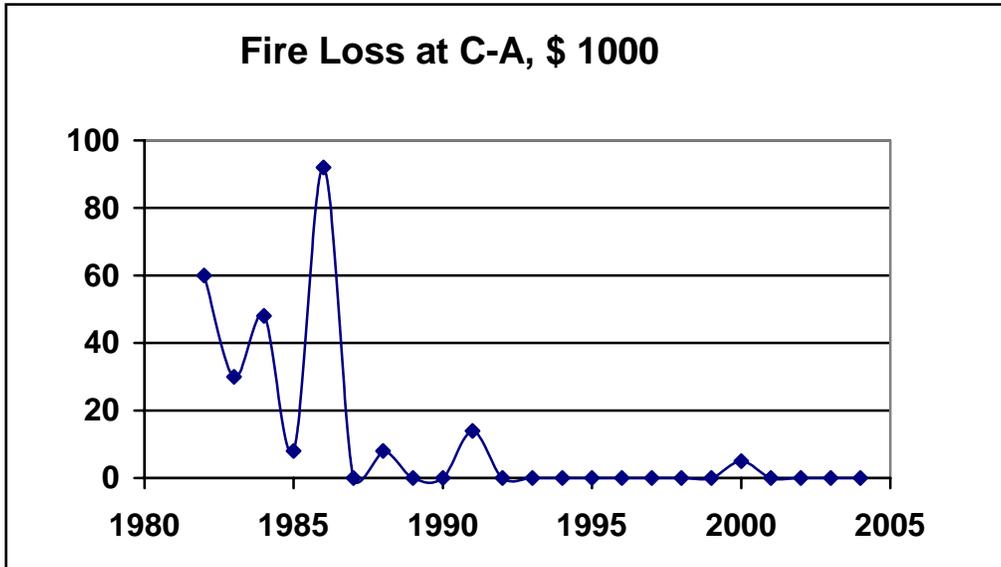
TABLE 5,
CY04 C-AD REPORTABLE OCCURRENCES

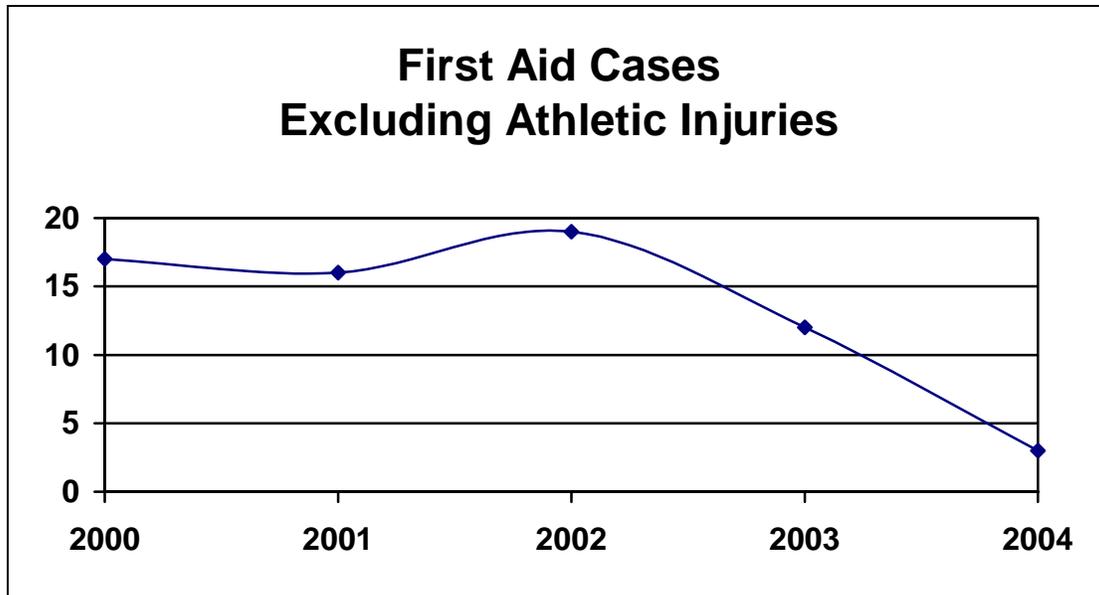
Transformer Dropped During Rigging (occurred 12-30-03, reported in CY04)
2004, Worker Injures Ankle Preparing for Cable Pull
2004, Load Falls Off Truck During Transport

SELECTED GRAPHS OF PERFORMANCE INDICATORS









Distribution:

C-A Department

- Bebon, M.
- Chaudhari, P.
- Goode, G.
- Hoey, S.
- Kelley, P.
- Kirk, T.
- Lebel, R.
- McNerney, A.
- Schaefer, C.
- Tarpinian, J.
- Williams, P.