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Memo

Date: April 28, 2000
To: Distribution
From: Peter Cirnigliaro
Subject: Performance Indicators for C-A Complex for CY99

This Performance Indicator Report reflects the performance of the Collider – Accelerator Department and its precursor.

For CY99, the collective-dose, 12.2 person-rem, is shown in the attached tabulation. The department ALARA dose goal for CY99 was 16.5 person-rem. The dose was shown to be lower primarily because very little exposure was received during the 3-month RHIC commissioning run.

There was one DOE reportable Occurrence during CY99, Activated Soil and Tritium in Groundwater. Corrective actions are closed. Details are located at <http://www.rhichome/AGS/Accel/SND/occurrences.htm>.

There were 11 Recordable Injury / Illness cases reported for CY99, excluding sports related cases. The Lost Work Case Rate was 2.2 per 100 FTE. The Department put forward a goal to reduce its Lost Work Case Rate. The goal set for CY99 was 2.5.

Rad waste packaged by C-A in CY99 was 1656 ft³. Rad waste shipped by BNL in CY99 was 624 ft³. Depleted Uranium packaged and shipped in CY99 was 1032 ft³. Tritiated water shipped to waste management in CY99 was 10,300 gal. (1373 ft³).

The Trouble Reports indicate 64 reports open beyond 90 days. This was due to scheduling delays.

Year over year, there has been a 33% reduction in Tier 1 deficiencies if CY99 is compared to CY98.

TABLE 1, C-A DEPARTMENT PERFORMANCE INDICATORS

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Whole-Body Collective Dose (person-rem)	39	25	27	48	82	85	39	43	12.2
Skin and Clothing Contaminations	0	0	0	0	0	0	0	1	0
Internal Contamination	0	0	0	0	4	0	0	0	0
Radioactive/Hazardous Materials Overexposures	0	0	0	0	0	0	0	0	0
Lost Work Day Case Rate (# per 100 FTEs)	4.0	2.9	2.2	1.5	2.1	1.2	1.2	3.4	2.2
1. Cases	16	11	8	5	7	4	4	12	8
2. Total Hours Worked (1000s)	807	773	741	651	674	666	663	700	741
Recordable Injury/Illness Rate (# per 100 FTEs)	6.0	5.4	4.1	4.9	4.2	2.4	3.3	4.8	3.0
1. Cases	24	21	15	16	14	8	11	17	11
Unplanned Safety Function Actuations	0	1	3	1	0	0	0	0	0
Violations of Operating Procedures	0	0	0	3	1	0	0	0	0
Unplanned Shutdowns	0	0	0	0	0	0	0*	0	0
Unusual Occurrences	3	0	2	1	0	0	0	0	1
Off-Normal Occurrences	7	4	8	6	5	4	3	4	0
Occurrences With Open Corrective Actions	3	1	2	1	1	0	1	1	0
Environmental Incidents	6	2	4	3	1	1	0	1	1
Solid Low-Level Waste Shipped									
1. Radioactive Waste (cu-ft)	3004	6354	2089	1742	2543	7018	6642	1494	624
2. Hazardous Waste (cu-ft)**	4.3	16	6.0	47	26	24	51	14.5	16.1
3. Mixed Waste (cu-ft)**	25	4	140	39	6.8	38	117	0	18.75
4. Industrial Waste (cu-ft)**	-	-	-	-	-	-	-	-	179.4

*A three-day stand-down of BNL in June 1997 per order of Secretary of Energy. Initiating event was not related C-A.

** Assumes 64 lbs./ft³.

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

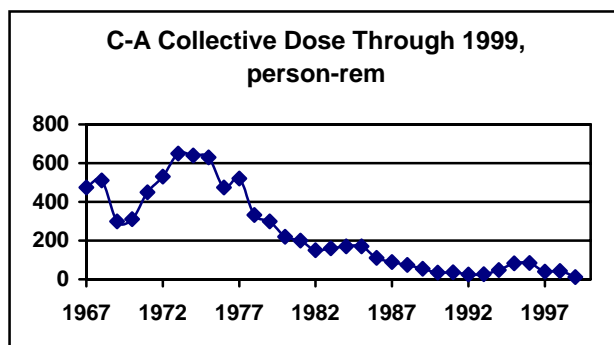
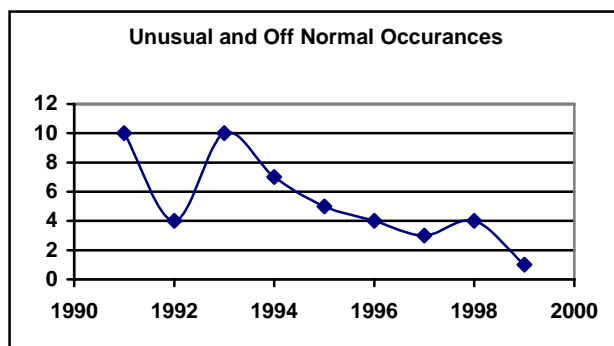
OSH Category	Definition of Category	Number of Deficiencies for 1998	Number of Deficiencies For 1999
General Safety	Inadequate lighting, inadequate aisle-ways, trip hazards in walkway, load ratings not posted, missing floor or ceiling tiles, broken hardware on doors, windows or machines, exposed building insulation, overdue inspection on cranes, hoists and elevators, lack of toe-boards or improper railings.	154	89
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
Housekeeping	Poorly organized areas, excessive fire loading from boxes, plastic and packing materials or storage on top of cabinets.	37	22
Chemical Safety	Improper gas-cylinder storage, improperly labeled or unlabeled hazardous materials, improper storage of hazardous materials.	36	34
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
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
Radiation Safety	Survey instruments out of calibration, radiation barriers or other controls in poor condition or poorly maintained posting.	1	6
Personnel Protection	Broken machine guards, not wearing personal protective equipment when required; for example, lack of safety glasses.	31	25
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
Outside & Grounds	Overgrown walkways, dilapidated or poorly maintained walkways and improper storage outdoors.	4	2
Other	Leaking containers or piping, improper air emissions, unlabeled sinks, unlabeled containers, improperly controlled satellite areas for waste.	1	4

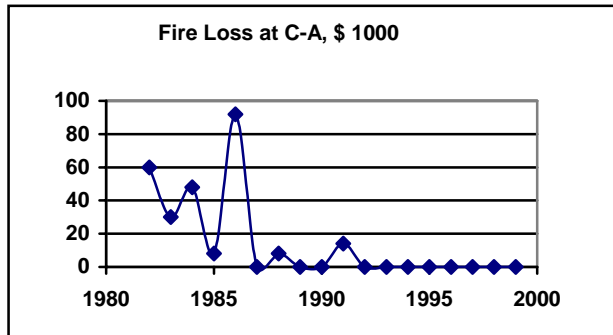
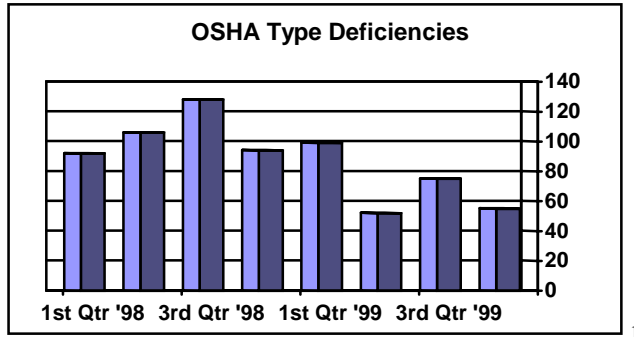
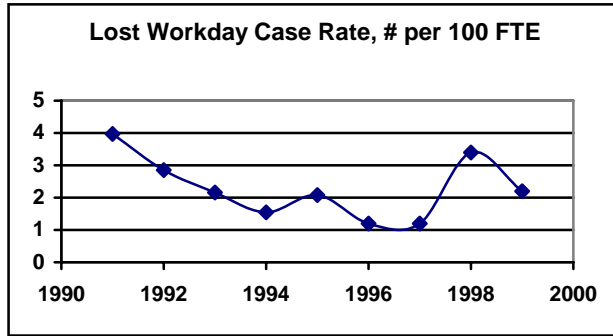
TABLE 3, TROUBLE REPORTS FOR CY99

Total Reports Issued This Year	159
Total Reports Closed	95
Reports Open Greater Than 90 Days	64

TABLE 4,
COMPLETION PERCENTAGE OF REQUIRED TRAINING FOR C-A EMPLOYEES FOR
CY99

Number of Requirements	Total Incomplete	Percent of Required Training Complete
5236	1036	80

Selected Graphs of Performance Indicators



Distribution:

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Brog, K.
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