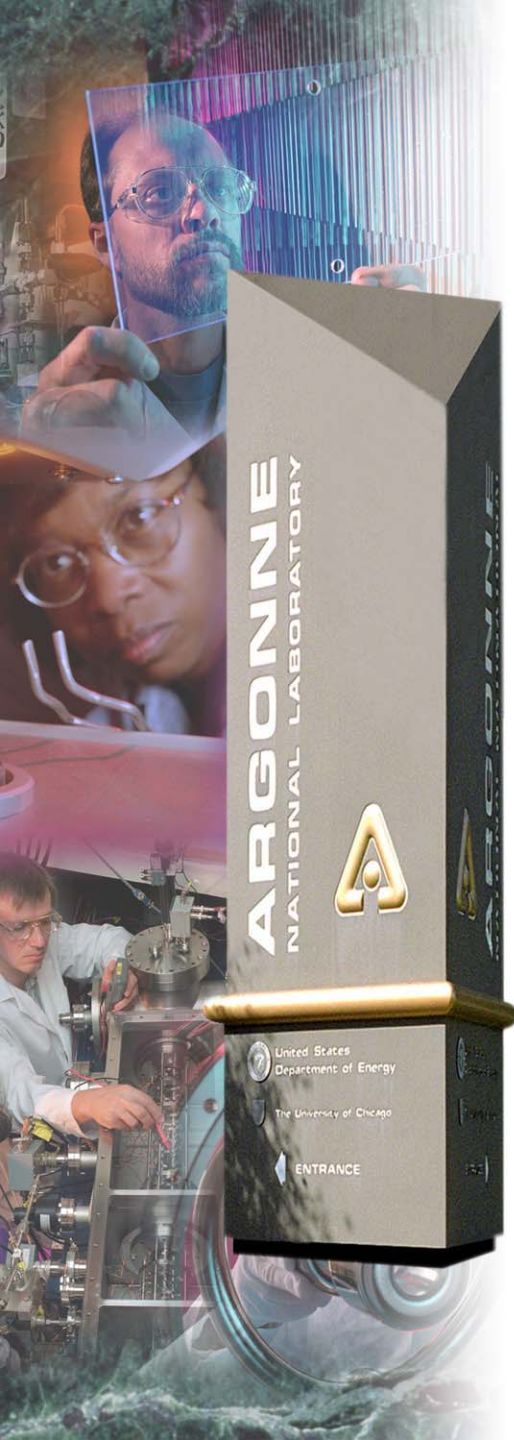


Environment, Safety & Health

Richard Hislop

*The University of Chicago Review
of the Advanced Photon Source
at Argonne National Laboratory*

September 17-19, 2003



A U.S. Department of Energy
Office of Science Laboratory
Operated by The University of Chicago



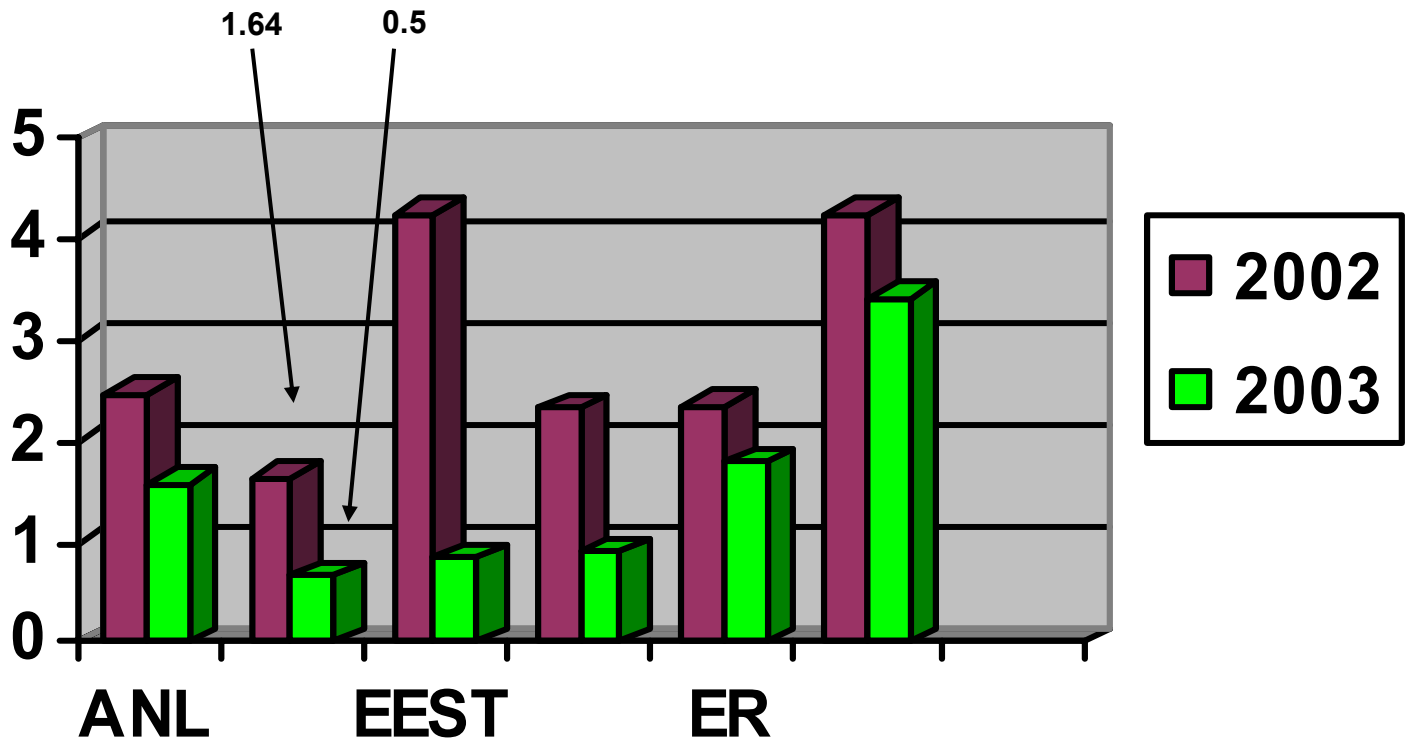
DOE Measures of ANL ESH Performance

- **Improve worker safety performance**
- **Manage and continuously improve the implementation of Integrated Safety Management and promote an improving culture throughout Argonne**
- **Manage and continually improve effective radiological and nuclear safety programs**
- **Improve environmental protection and stewardship performance**

Improve Worker Safety Performance

OSHA Recordable Case Rate

Rate per
200,000
Hours
Worked



APS Injury Experience – CY 2003

Personnel Injury Type	Occurrences (CY 2003)
Slips/Trips & Falls	5
Vehicle/Runner Accident	1
Bee Sting	1
Other Incidents	
Machine Guarding Incident	1
Parking Lot Fender Bender	1



Management Inspections

SMART Checklist



Slips/Trips & Falls

Check the appropriate information and click the Add button when complete.

Check if Any Unsafe	Check if All safe
REACTIONS OF PEOPLE <input checked="" type="checkbox"/>	
<input type="checkbox"/> Adjusting Personal Protective Equipment	
<input type="checkbox"/> Changing Position	
<input type="checkbox"/> Rearranging Job	
<input type="checkbox"/> Stopping Job	
PERSONAL PROTECTIVE EQUIPMENT <input checked="" type="checkbox"/>	
<input type="checkbox"/> Head	
<input type="checkbox"/> Eyes and Face	
<input type="checkbox"/> Ears	
<input type="checkbox"/> Respiratory System	
<input type="checkbox"/> Arms and Hands	
<input type="checkbox"/> Trunk	
<input type="checkbox"/> Legs and Feet	
<input type="checkbox"/> Wearing TLD	
POSITIONS OF PEOPLE (Injury Causes) <input checked="" type="checkbox"/>	
<input type="checkbox"/> Striking Against Objects	
<input type="checkbox"/> Struck By Objects	
<input type="checkbox"/> Caught In, On or Between Objects	
<input type="checkbox"/> Falling	
<input type="checkbox"/> Contacting Temperature Extremes	
<input type="checkbox"/> Contacting Electric Current	
<input type="checkbox"/> Exposure to Hazardous Substance	
<input type="checkbox"/> Overexertion	
<input type="checkbox"/> Repetitive Motions	
<input type="checkbox"/> Awkward Positions/Static Postures	



Management Inspection Feedback

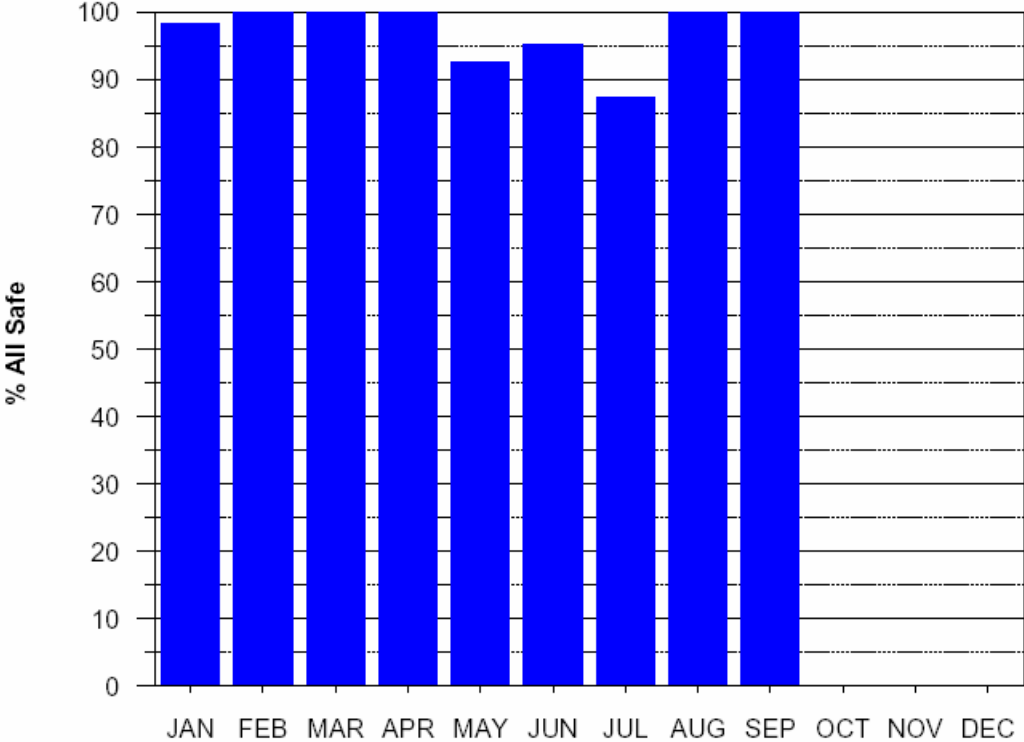
SMART Report

10 SEP 2003

2003 - All Areas

ORDERLINESS

Percent All Safe by Month



Safety Inspection of 4/16/03 by J. M. Gibson, E. Gluskin, J. Alicz, and B. Stockmeier - with relevant follow-up 4/22/03, 4/30/03, 5/1/03, and 5/13/03

L1104

1. Housekeeping needs to be improved within this lab by May 7, 2003, and will be tracked through the APS COATS system (see photos below). At that time, XFD Division Management will revisit this lab to determine if adequate improvement has been made in terms of housekeeping.



Before



Before



AFTER



AFTER

Corrective Action 5/13/03: Housekeeping in lab has been improved (see above photos).

Corrective Action Tracking

Items Found

[Main Menu](#) | [Query Page](#) | [Help](#) | [Logout](#) |

Note : Items marked with an asterisk are P.A.N.T.S Tasks

Tracking #	Status	Due Date	Type	Div/Group	Facility	Classification	Location	Description
816	Open	01-NOV-03	Facility Upgrade	ASD-ME	411	Facility Deficiency	linac gallery	reduce noise levels from water stations
1502	Open	25-SEP-03	Observation	AOD-BLD	400 Complex	Electrical	Column 137	There is a ground braid that is broken away on column 137. This is located under the breaker box
1527	Open	01-DEC-03	Inspection	AOD-CF	420	Hazardous Material	Entire Building	Perform a smoke test to determine which Air Handlers should be turned off in response to a Vedsa alarm in one of the B420 RF Crowbar Cabinets, in the event of a release of mercury vapor. (COATS tracking requested by E. Chang on 2/19/03) Responsible person is M. Kirshenbaum.

ANL OSHA Compliance Inspection

- **OSHA identified 1528 deficiencies at ANL, 22 of which were opportunities for improvement at the APS.**
 - Oxygen/acetylene cylinders stored on a cart with the regulators removed.
 - Regulator on gas cylinder in storage.
 - Vertical band saw guards.
 - Some fire extinguisher signs not clearly visible in the Exp. Hall.
 - Electrical junction box cover plate missing in a laboratory.
- **All observations, but one, have been corrected.**



APS Takes a Stand on Traffic Safety

Vehicle/Runner Incident

- Ad-hoc Traffic Safety Committee raised concern about speeding & moving violations at ANL.
- APS employee was struck by a Plant Facilities vehicle while jogging.
- APS established a policy to modify driver behavior.
- *ANY person working at the APS ticketed for driving 20 MPH faster than the speed limit will be restricted from driving on ANL property for 90 days unless they produce evidence of having attended a Defensive Driving Course.*



Traffic Violation	APS FY 2002	APS * % of ANL
Speeding > 20 MPH	11	48 %
Moving Violations	53	33 %
Parking	18	19 %
Other	9	20 %

* APS constitutes approximately 20% of ANL

APS Supporting the User Community

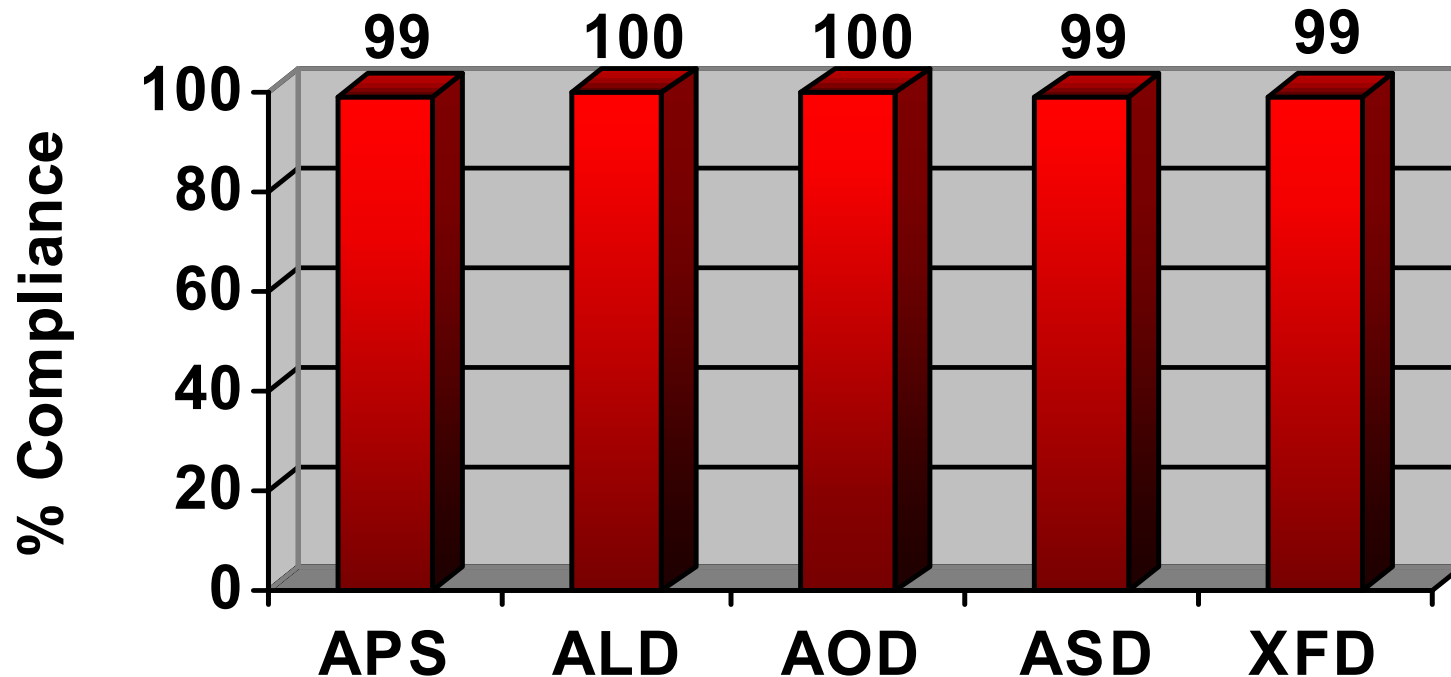
Machine Guarding Incident

- The incident was the improper positioning of a milling machine guard.
- Voluntary tool safety course coordinated by APS for user community.
- College of DuPage conducted the training.
- Nine individuals attended the first course and a second one is being scheduled.
- Two individuals have registered for continuing tool safety training at College of DuPage.



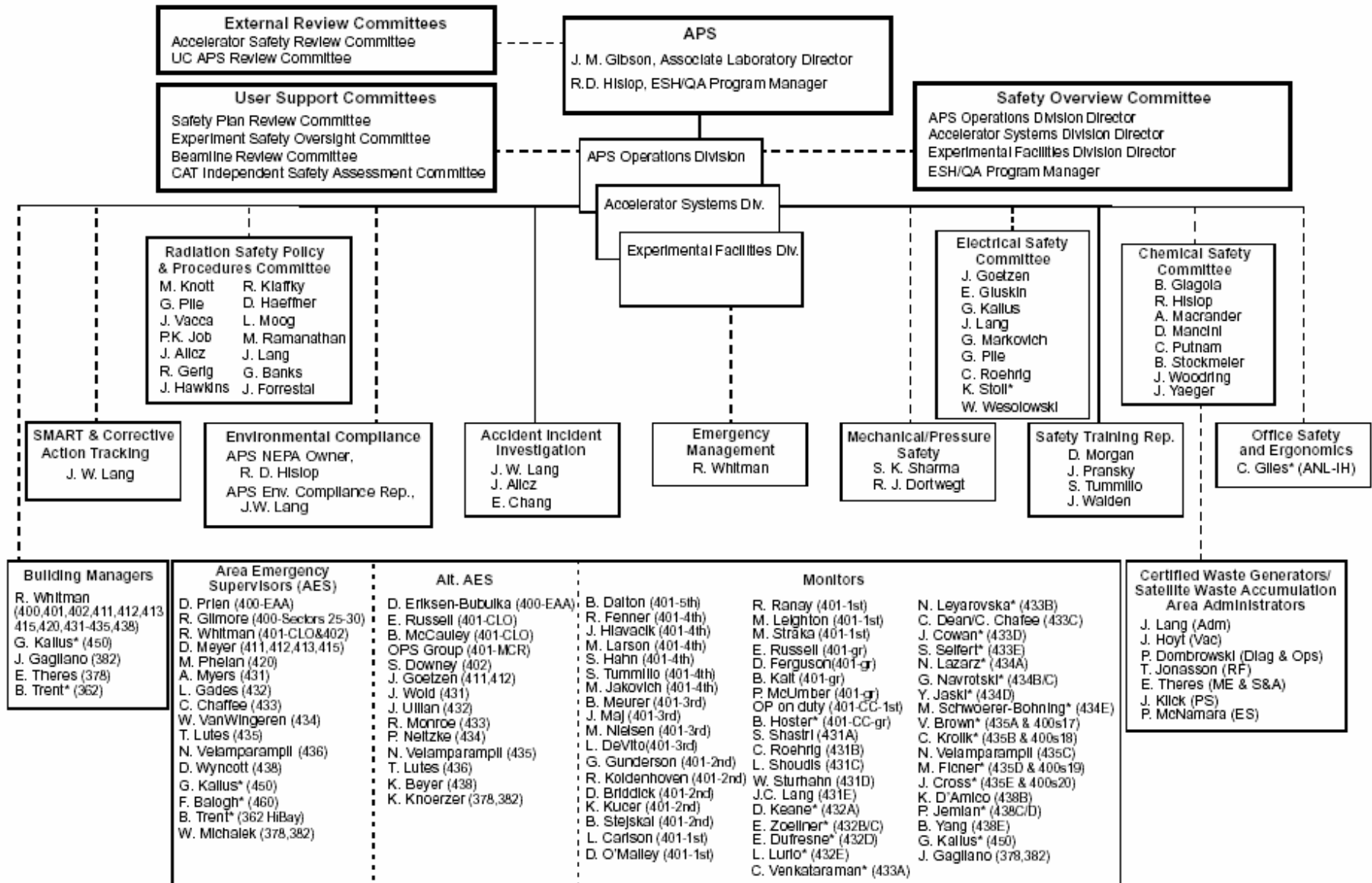
APS Safety Program Compliance

APS SAFETY TRAINING COMPLIANCE



ADVANCED PHOTON SOURCE

Environment, Safety, and Health Assignments



*Non-APS personnel

Continuous Safety Improvement

- 300-Area Hazards Assessment & Clean-Up 1990
- ESH & QARs in all APS Divisions 1991
- ACIS & PSS Use of PLC Logic 1992
- APS Safety Envelope 1993
- DuPont Safety Training for APS Line Managers 1994
- Web-Based Access to Safety Training Information 1995
- “T” Lock-Out Devices on All Panels 1996
- DuPont STOP Training 1997
- Corrective Action Tracking System (COATS) 1998
- Safety Management Reporting Tool (SMART) 1999
- Safety Observation Training for Staff 2000
- Integration of Safety into APS Reorganization 2001
- Integration of APS into CAT Safety Activities 2002
- Chemical Management Inventory Automation 2003



Reviews and Assessments

- Fall Protection 2003 February (Consultant)
- Radiation Safety Management Program 2003 March (External Peer)
- QA Review of ANL Accelerators 2003 April 2003 (DOE)
- Noise Measurement Survey – Bldg 411 2003 April (EQO-IH)
- Management Assessment User Office 2003 May (Consultant)
- Accelerator Safety Review 2003 June (ANL Director)
- OSHA Facility Inspection 2003 July (OSHA)
- Radionuclide Air Emission & Control 2003 July (DOE)



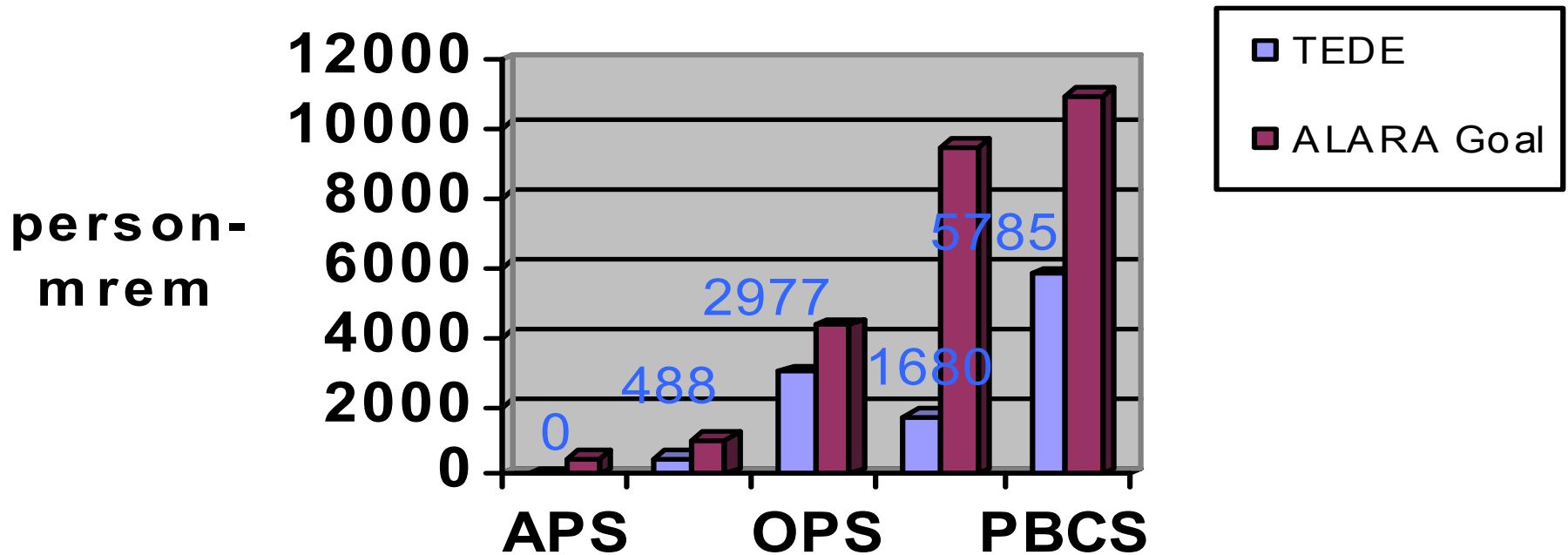
APS CAT Safety Upgrades

- **Formalization of shipping requirements for CATs with APS oversight**
- **APS involvement of CAT Independent Safety Assessments**
- **New Model CAT Safety Plan**
- **CAT Safety Plan Review Committee rejuvenation**
- **Revise Experiment Safety Approval process**
- **Increase ESH presence on Experiment Safety Review Committee**
- **Review training intervals for sector-specific training**
- **Integration of resident CATs in Training Management System**
- **CATS integrated into ANL Chemical Management System**
- **Increase ESH presence on experiment floor**
- **ANL conduct of routine safety inspections**



ANL Radiological Statistics

Collective Total Effective Dose Equivalent



Dosimetry Policy Change

- **“Administrative Radiation Controlled Area” designation in the Experiment Hall was suspended January 1, 2003**
 - Control was established in 1995 at the start of commissioning as a precaution until quantitative information was established to validate the effectiveness of the storage ring shielding.
 - None of 60,000 dosimeters issued to individuals working at the APS or its visitors detected personnel exposures beyond background due to storage ring operations.
 - Peer review by Jefferson Labs, ALS, ANL and FERMI concurred with our proposed action.
 - Dosimetry will continue to be conducted in the Experiment Hall.
- **APS Radiation Protection Program Review – Peer Review March 2003**
- **Radionuclide Air Emission Monitoring Review – DOE Review July 2003**

APS Document Management to be Improved

- 2003 APS Goal
- “Update Document Management”
- Task force assembled and proposed new electronic system
- Manager appointed to lead new effort (Marcia Wood)
- Scope will include drawings, office documents, and web content

APS Management has attested to their support of this endeavor.

ARGONNE
NATIONAL
LABORATORY

INTRA-LABORATORY MEMO

August 6, 2003

To: APS Employees
From: J. Murray Gibson *JMG* Associate Laboratory Director, APS
Subject: APS Electronic Document Management System

As stated in my memo dated June 26, 2002, the APS must carefully manage all of its documents, such as engineering drawings, logbooks, procedures, and administrative files. This requirement, together with our desire to migrate to a “paperless” workplace, led me to create the APS Electronic Document Management Task Force.

This group, under the leadership of Geoff Pile (ASD), has made preliminary recommendations and is preparing a final report. The task force, which examined in detail our current approach to document management and our needs for the future, has issued a Request for Information and evaluated the responses. The task force’s recommendation, that we pursue as soon as possible the implementation of an electronic document management system at the APS, is accepted and strongly endorsed by APS Senior Management. We wish to express our sincere gratitude to Geoff and all of the task force members, listed below, for their excellent work.

Electronic document management at APS is now entering phase two: implementing a management solution to address the challenge. AOD will lead this document management upgrade. Bill Ruzicka, AOD DD, and I are delighted to announce that Marcia Wood has agreed to take overall responsibility. Bill and I have confidence in Marcia’s ability to oversee the selection, implementation, and maintenance of an electronic document management system. Marcia is well-known to APS for her ability to provide solutions that customers want – no small compliment! In recognition of the importance of this addition to Marcia’s existing MIS responsibilities, effective September 1, 2003, a new group will be created in AOD with the title “Information Management,” which Marcia will lead. As well as the existing MIS staff, the group will also contain the Document Control Center and any future staff directly associated with document management. Marcia will recuse herself from the Electronic Document Management Task Force as they complete their report and will work with them to ensure a smooth transition into the next phase.

With the help of advice from the Electronic Document Management Task Force, Marcia will prepare a plan for implementation of an EDM system. Components of this plan will include issuing a Request for Proposal and implementing the system in a phased approach. You will learn more soon from the task force’s final report and from Marcia.

All APS senior managers have signed this letter to demonstrate their commitment to making our EDM system work. Please join us in supporting Marcia as we move forward. Even though there will be some inevitable pain of introduction, the new system is designed to make our lives easier, safer and more productive.

EDMS Committee Membership

Yeldez Amer
Lahsen Assoufid
Bran Brajuskovic
Paul Choi
Francesco De Carlo
Bob Fischetti
Geoff Pile
Lovely Pruitt
Rose Torres
Marcia Wood

James M. Hill
Deputy Associate Laboratory Director

W. G. Ruzicka
AOD Division Director

Rodney Seig
ASD Division Director

E. Bluth
XFD Division Director



Project Management Initiative at the APS

APS Goal: Employ a graded approach to project management

- Objectives:**
- Provide APS with a uniform process for project assessment and management
 - Enhance awareness and communication
 - Optimum distribution of resources

The Process: Phase I: Proposal assessment, approval, and prioritization

- Standard proposal form
- Help management set project priorities
- Grading & priority matrix

Phase II: Project Management and Tracking

WBS	Activity Name	Start Date	Finish Date	Total Budget K\$	Responsible Person	% Complete	Actual Cost to date	2003						2004					
								M	J	J	A	S	O	N	D	J	F	M	
IXS-7.7	Monochromatic Mirrors	4/7/03	8/31/07	575.0	W. Sturhahn	0.0%													
IXS-7.7.1	MERIX Mirror	4/7/03	6/3/05	275.0		0.0%													
IXS-7.7.1.1	Design	4/7/03	10/3/03	0.0		0.0%													
IXS-7.7.1.2	Procurement	10/6/03	3/5/04	275.0		0.0%													
IXS-7.7.1.3	Installation	3/7/05	6/3/05	0.0		0.0%													