UNIVERSITY OF KENTUCKY

State of the Environment

2005-06 Annual Report

Prepared for the

Associate Vice President for Campus Services

Presented by the

Environmental Health & Safety Division

and

Committee on Safety and Environmental Health

December 2006

EH&S Environmental Health & Safety

UK Safety begins with YOU!

State of the Environment
University of Kentucky

2005-06 Annual Report

Jointly submitted by the
Environmental Health & Safety Division
and the
Committee on Safety and Environmental Health
to
Ken Clevidence
Associate Vice President for Campus Services
on the
18th day of December 2006
by

David Hibbard, Director
Environmental Health & Safety
Division

Herb Strobel, Chair
Committee on Safety and
Environmental Health

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Environmental Health & Safety Main Office

Major Accomplishments

1. **Continued to expand web-based delivery of safety training**. EHS added a new online Biological Safety course outlining laboratory procedures, regulatory requirements and the research protocol approval process. Response to EHS' online course offerings continues to be excellent, and overall EHS trained nearly 4% more people in 2005-06 than the previous year.

> ★ *EHS has trained nearly 65,000 people since 1994*

2. **Improved biological safety cabinet safety.** EHS developed and implemented a program for servicing and certifying approximately 377 biological safety cabinets currently in use on campus. An online survey was used to identify biological safety cabinets needing certification and contracts were awarded to four vendors for servicing them.

Biological Safety Cabinet

3. **Enhanced fire safety**. In accordance with Congress' designation of September as national Campus Fire Safety Month, EHS and the Lexington Fire Department conducted hands-on fire safety training exercises and demonstrations for faculty, staff and students throughout the month. Activities were particularly directed to students living both on and off campus.

Sprinkler Training Unit

4. **Evaluated safety in art facilities.** A complete industrial hygiene survey was conducted in areas of Reynolds Building #1 occupied by Fine Arts departments. The survey included a review of chemical processes, ventilation and potential exposure to hazardous materials. A report detailing findings and recommendations was delivered to College of Fine Arts administrators.

Fine Arts Studio

5. **Improved hazardous waste collection services**. A new online hazardous waste pickup request form was developed and implemented. With the new online form, hazardous waste generators now have three options for requesting waste pickups.

★ *Waste container pickups increased 11% this year*

Significant Projects

1. **Fleet Safety**. EHS participated in the Accident Review Board/Vehicle Safety Committee to develop new policies for use of 15-passenger vans and communicate the changes to the UK community. As a result, 352 new employees received 15-passenger van training and all such vans in the fleet were required to undergo safety modifications.

> ★ *Van training increased over 400% last year*

2. **Radioactive Materials License**. As a result of major revisions to state regulations governing radioactive materials, the University's broad scope medical license was amended to reflect the new requirements. The amendment also included changes in radiation safety procedures and additional training for medical and radiation safety personnel.

3. **Underground Storage Tanks**. Closure was received from the Kentucky Division of Waste Management on a project to remove an abandoned underground storage tank from the former LR Cooke Chevrolet property in downtown Lexington. In addition, a project was undertaken to remove three abandoned underground storage tanks discovered during construction of the new Patient Care Facility parking garage.

Excavation of Underground Storage Tank

4. **Minors in Laboratories**. A new policy was developed to govern work performed by minors in research laboratories. The policy covers training and notification requirements and also bars minors from highly hazardous procedures. A separate training program was developed to give high school students involved in science on campus a basic understanding of laboratory safety.

Typical Laboratory

5. **Life safety**. The state Office of Housing, Buildings and Construction extended UK's plan review and inspection authority for construction and renovation projects to a level of $400,000. The state will continue to review projects funded above that level and all projects in the University Hospital and Chandler Medical Center.

★ *181 projects were reviewed last year*

Regulatory Activities

1. As part of the renewal process for the University's Select Agent registration, representatives of the Centers for Disease Control and Prevention completed a thorough inspection of Select Agent facilities on campus. The inspection resulted in the revision of certain practices, procedures and policies, as well as additional training of affected faculty and staff. The University was granted a renewal of the Select Agent registration in April 2006.

2. The State Fire Marshal conducted its annual inspection of selected campus buildings in June 2006. Noted deficiencies were addressed through the appropriate sector. Emphasis was given during this inspection to classrooms designed to hold 50 or more students.

3. On March 15, 2006, personnel from the Kentucky Division of Waste Management conducted a hazardous waste compliance inspection. The University's hazardous waste facility and related waste handling documents were reviewed, and the inspectors conducted follow-up inspections in Agricultural Science Center North, Barnhart Agricultural Engineering Building, Plant Science Building and Chemistry-Physics Building. Laboratories in the Dimock Animal Pathology Building were also inspected. Labeling and container violations were noted in three labs during the inspection but were corrected immediately or within one day. Because the violations were corrected, no enforcement action was taken by the agency.

★ *28 labs were inspected*

4. As the result of a Notice of Violation issued by the Kentucky Division for Air Quality (KDAQ) in April 2004 for violations of the University's Title V air permit, UK entered into an Agreed Order with KDAQ in September 2005. The violations in question involved construction of a new boiler, emergency generator and fuel storage tank without prior regulatory approval. A civil penalty of $50,000 was paid.

5. On May 3, 2006, personnel from the Kentucky Division of Waste Management conducted hazardous waste compliance inspections at the Livestock Disease Diagnostic Center, the North Farm Area and the Center for Applied Energy Research (CAER). Inspection and recordkeeping violations were noted at CAER and a Notice of Violation was issued by the state on April 25, 2006. A follow-up inspection by the state on May 3, 2006, revealed that all violations had been corrected and no new violations were observed.

6. The North-Central and Lake Cumberland 4-H camps each received a Notice of Violation from the Kentucky Division of Water for violations of their respective wastewater discharge permits, primarily associated with operation and maintenance of on-site treatment plants. Corrective action plans were developed and submitted to the state. As of the date of this report, no further enforcement is pending at those locations.

Key Indicators for EHS

The numbers and costs below are provided to give an indication of the level of activity within EHS units when conducting their day to day business.

Biosafety Office

Research protocols approved/registered	91
Approved research protocols in database	489
Training class attendees	369
Laboratory audits	71
Biosafety investigations	19
Contact hours (total):	1,274
IBC Registrations	643
Biosafety	537
Training and presentations	94

Environmental Management

Asbestos and lead samples analyzed (cost)	774 ($18,703)
Asbestos abatement projects	157
Asbestos abatement costs	$778,246
Asbestos/lead awareness training attendees	118
Other environmental sampling (air, water, soil, etc.)	1,300
Groundwater Protection Plan inspections	19
Environmental remediation costs	$146,958
Hazardous waste generators	571
Pounds of regulated waste shipped	171,289
Waste disposal cost (total UK)	$91,263
Waste minimization cost savings	$36,485
Waste containers picked up	9,985
Fluorescent bulbs recycled (pounds)	16,665
Batteries recycled	2,237
Hazardous waste/IATA class attendees	1,006
Incidents/releases responded to	31
Glass bottles/good chemicals recycled	1,553
Mercury thermometers exchanged	62

Occupational Health and Safety

Research laboratories in the Chemical Hygiene database	1,549
Laboratories inspected	1,234
Fume hoods tested	1,294
Indoor air quality investigations	51
Industrial hygiene samples	19
Respirator fit tests	91
Ergonomic assessments	53
Training class attendance (total):	4,500
Chemical Hygiene Plan/Laboratory Safety	915
Hazard Communication	306
Hot Work Permitting	59
Respiratory Protection	91
Bloodborne Pathogens	861
Ergonomics	18
15 Passenger Van Driver Safety Awareness	352
New Employee Orientation (EHS Section)	1,689
SuperVISION (EHS Section)	103
Construction Safety	19
Emergency Eyewash and Shower	87

Radiation Safety

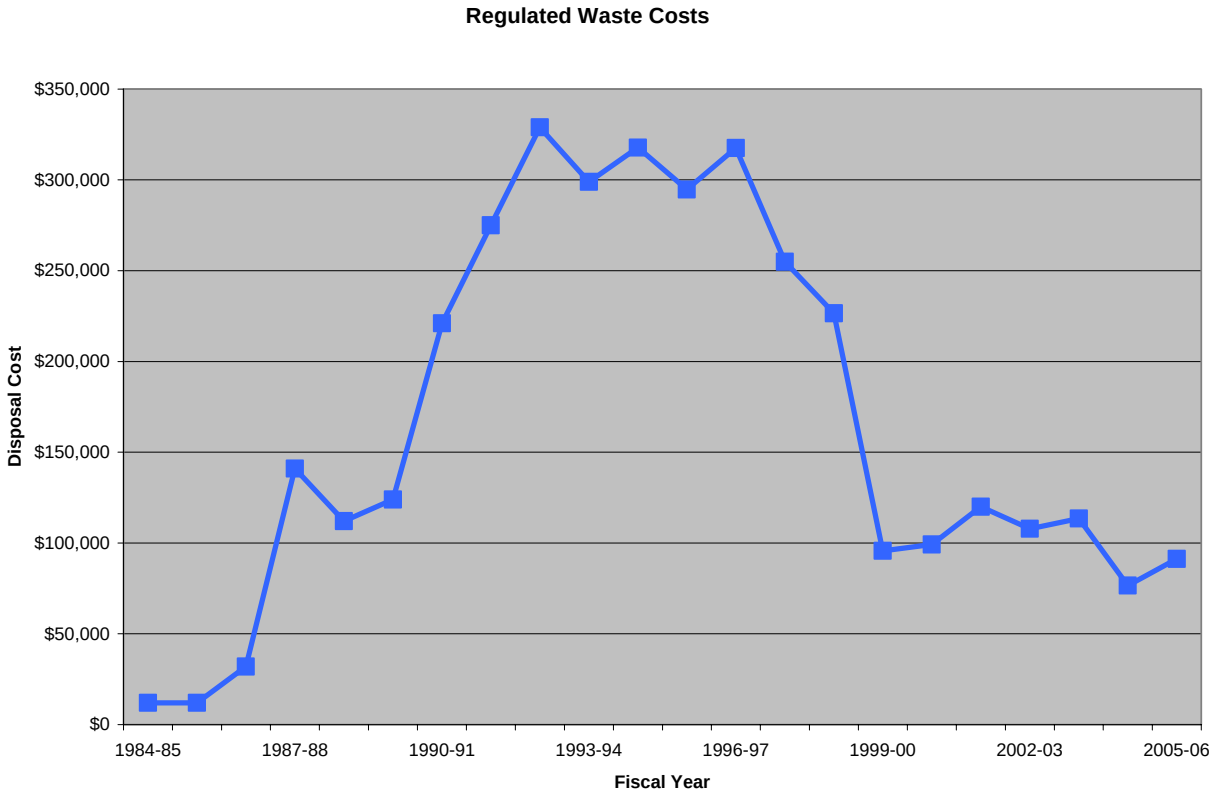
Authorized users (laboratories)	176 (337)
Radionuclide purchases, cost (millicuries)	$853,024 (52,084)
Radionuclide orders received	1,713
Radiation source inspections/surveys	1,513
Sealed source leak tests	265
Radiation instruments calibrated	186
Patient therapies	107
Radiation safety class participants	1,010
Personnel monitoring – film badges, etc.	8,631
Level I ALARA reports	97
Level II ALARA reports	30
Waste disposal cost	$65,194
Dry solid, long-lived, radioactive (cu. ft. shipped)	378
Dry solid, short-lived, decayed (cu. ft. disposed)	154
Liquid (cu. ft. shipped)	53

University Fire Marshal

Fire extinguishers inspected	6,952
Fire extinguisher/fire prevention training attendees	2,507
Fire alarms	460
Actual fires/incidents	26
Plan reviews of new construction/renovation projects	181

Hazardous Waste Cost Trend Report

Total UK Regulated Waste Disposal

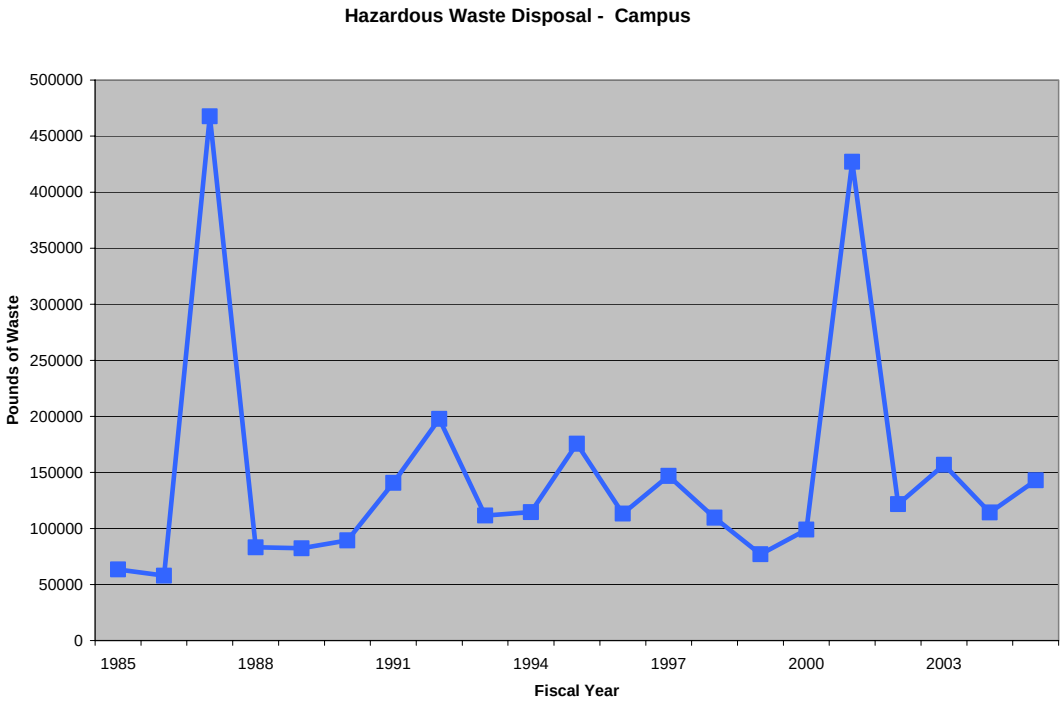


Note: Figure for 2001-02 includes $15,392 for disposal of contaminated soil from Barker Hall.

Source: Year-ending FRS Account Statement for Environmental Management and Disposal of Wastes

Hazardous Waste Quantity Trend Report

Hazardous Waste Disposal Per Calendar Year (in Pounds)

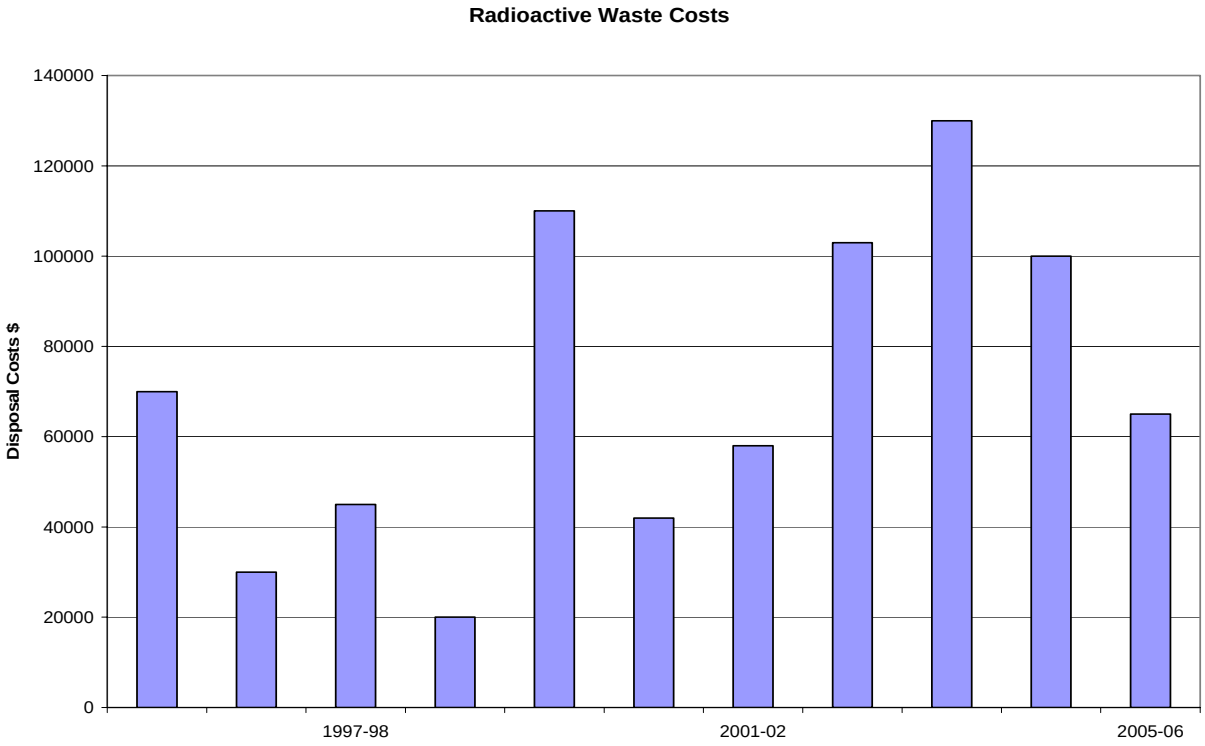


Notes

1. *Figure for 1987 includes 365,576 pounds of waste from the South Farm cleanup project*
2. *Figure for 1998 includes 16,847 pounds of waste from the South Farm cleanup project*
3. *Figure for 2001 includes 345,800 pounds of waste from the Barker Hall cleanup project*

Source: Hazardous Waste Annual Reports filed with the Kentucky Natural Resources and Environmental Protection Cabinet

Radioactive Waste Cost Trend Report*

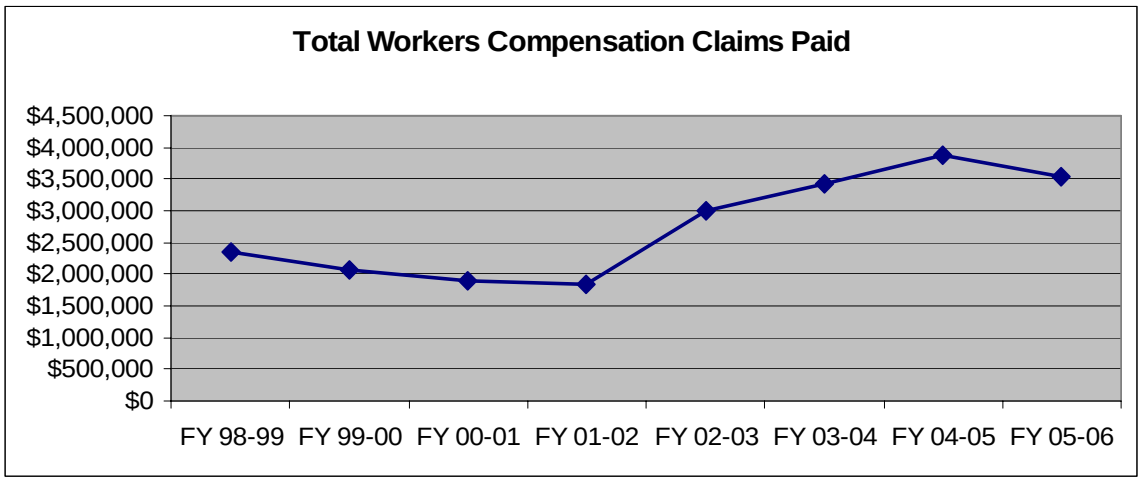


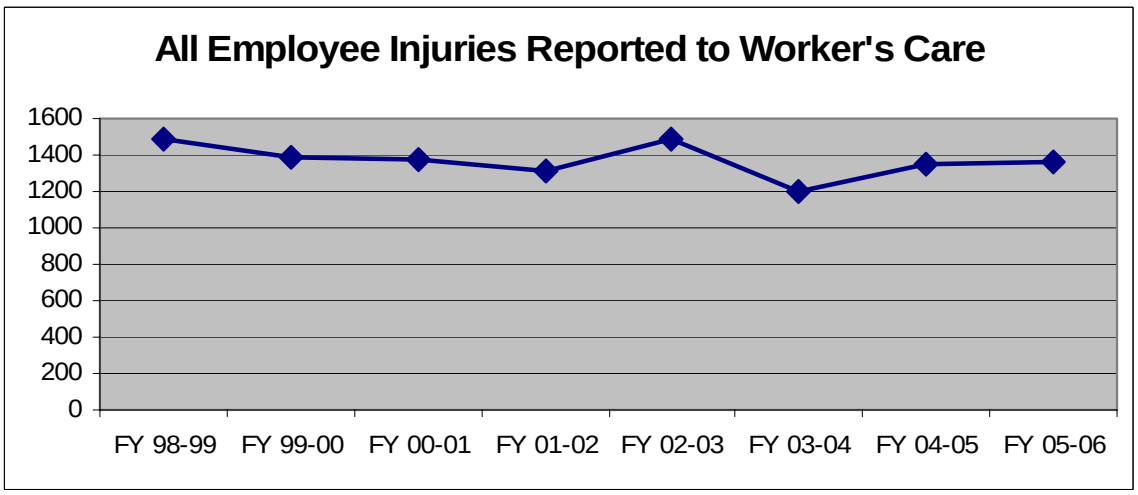
** Excluding mixed radioactive-hazardous waste*

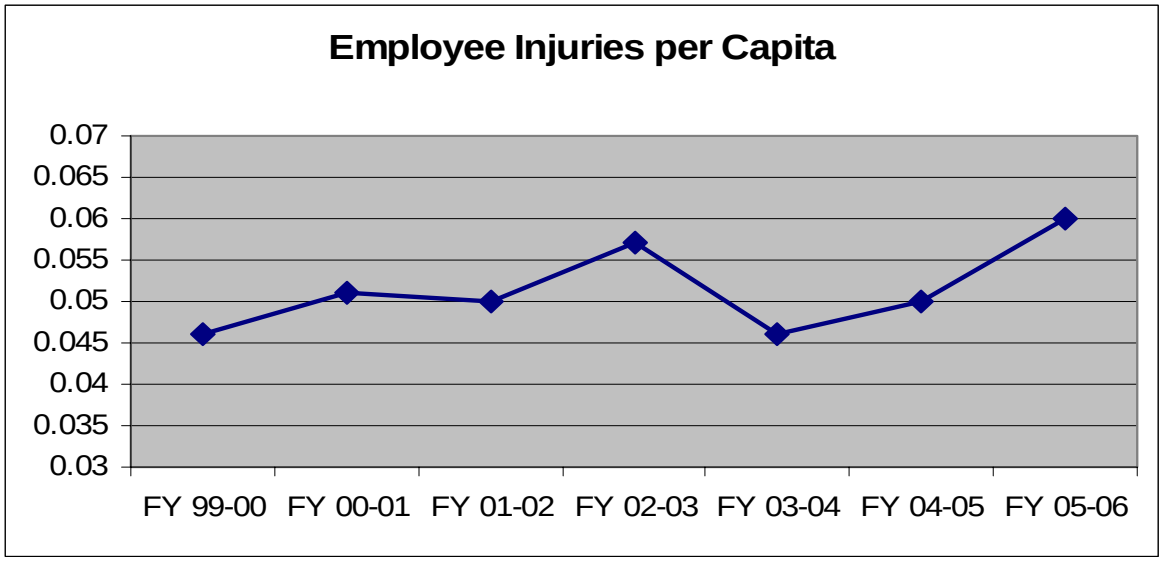
Source: Year-ending FRS Account Statement for Radiation Safety Waste Disposal

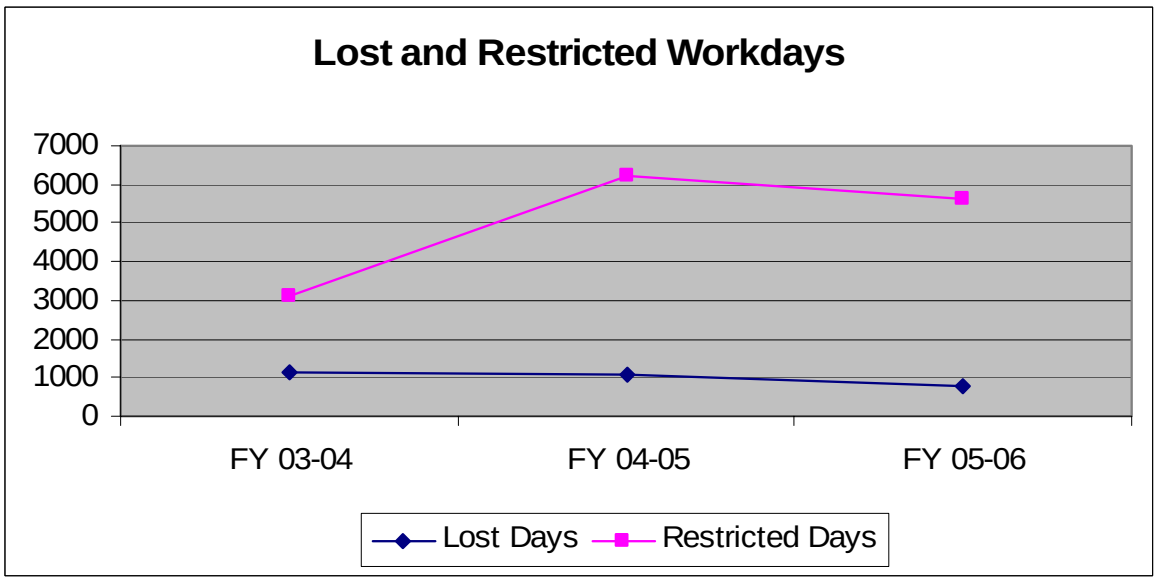
Injury and Illness Trend Report

OHS tracks the occurrence of workplace-related injuries and illnesses at UK. Between FY 98-99 and FY 02-03, the data show that reported injuries had minimal variance. Reported injuries increased by 11 percent from the previous Fiscal Year and injuries per capita increased by 8 percent. Total Workers Compensation (WC) claims paid had minimal variance between FY 98-99 and FY 01-02. Since then, claim costs have been increasing until this fiscal year when a decrease of 10 percent. Previous increases were attributed to a variety of legislative changes and legal decisions. This included a substantial increase in the maximum amount of attorney fees paid by the injured worker during litigation. The majority of injuries continue to be classified as cut/puncture/laceration and sprain/strain. Major causes of injuries continue to be attributed to needle sticks, slips/trips/falls, and lifting. Further analysis of the WC claim data has determined that musculoskeletal injuries/illnesses, e.g., strains, sprains, have consistently accounted for more than half of the total WC claims paid each year.






Employee Injuries per Capita
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
FY 99-00
FY 00-01
FY 01-02
FY 02-03
FY 03-04
FY 04-05
FY 05-06

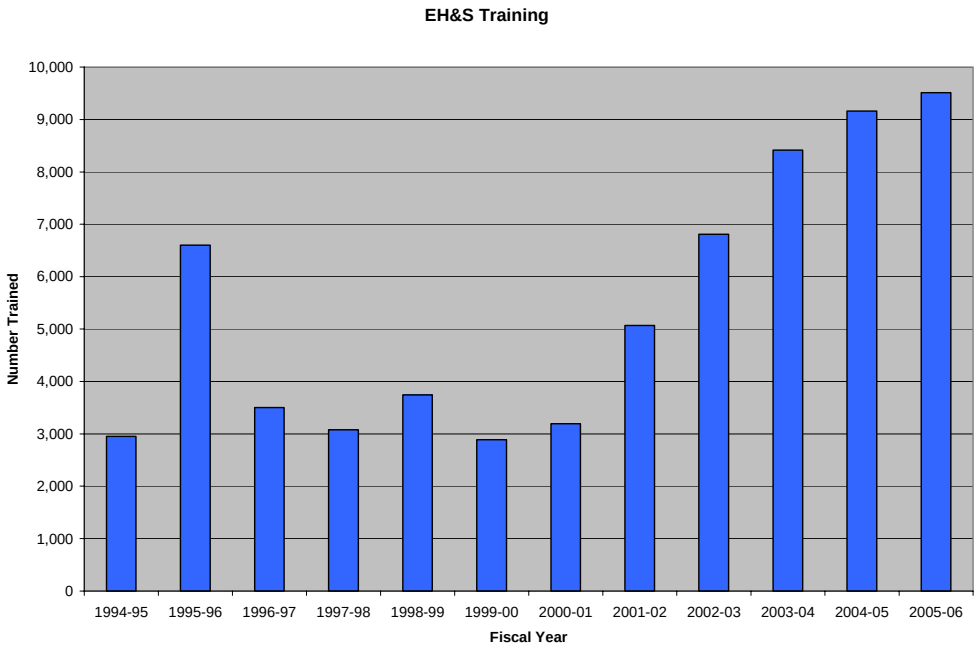

Lost and Restricted Workdays
7000
6000
5000
4000
3000
2000
1000
0
FY 03-04
FY 04-05
FY 05-06
Lost Days
Restricted Days

Environmental Remediation Cost History

Pristine, OH Superfund Settlement (1990)	$236,609
Administration Building Lead Cleanup (1990)	$29,660
Jet Fuel Release (1990 – 1994)	$63,500
Agriculture Motor Pool UST Cleanup (1990 – 1997)	$22,866
UST-related Remediation Projects (1990 – 2000)	$155,474
Seymour, IN Superfund Settlement (1991)	$4,917
Robinson Forest Cleanup (1994 – 1995)	$829,981
Maxey Flats, KY Superfund Settlement (1995)	$124,320
Barker Hall Firing Range Lead Cleanup (1995)	$15,590
South Farm Tract A Soil Excavation (1996)	$37,152
North Farm Chemical Disposal Sites Remediation (1996 – 2004)	$316,416
Carnahan House USTs Cleanup (1996 – 1997)	$50,973
Reynolds #2 PCB Spill (1997)	$68,500
PPD Pole Yard PCB Spill (1997)	$14,662
Closure of Hazardous Waste Storage Facilities (1998)	$55,205
Central Heating Plant USTs Cleanup (1998 – 2000)	$28,993
Haggin Hall PCB Spill (1999)	$5,900
Chemistry-Physics Mercury Remediation (1999 – Present)	$269,920
Closure of College of Ag USTs (2000)	$84,297
Barker Hall Firing Range Soil Removal (2000 – 2001)	$104,330
Arboretum Hydraulic Oil Spill (2001)	$2,500
Student Center PCB Spill (2001)	$1,200
Reynolds #1 Oil Spill (2001)	$375
CAER Diesel Spill (2001)	$1,600
Maine Chance Farm Diesel Spill (2002)	$4,100
Nutter Fieldhouse Oil Dumping (2002)	$1,835
Main Building Mercury Release (2003)	$13,193
Manhole E-408/University Hospital Cleanout (2003)	$9,810
Mercury at Medical Center (2003 – Present)	$17,625
Lead Dust Cleanups (2004 – Present)	$47,365
Former LR Cooke Chevrolet (2004 – Present)	$90,977
Clinical Engineering Mercury Spill (2006)	$91,879
Total	**$2,801,724**

EHS Training Efforts

Fiscal Year	# Trained
1994-95	2,950
1995-96	6,600
1996-97	3,500
1997-98	3,076
1998-99	3,742
1999-00	2,888
2000-01	3,193
2001-02	5,066
2002-03	6,810
2003-04	8,416
2004-05	9,162
2005-06	9,510
Total	**64,913**



Cost of Enforcement Actions
Since 1990

The figures below include penalties imposed on the University as part of state and federal enforcement actions. They do not include the costs of corrective actions or environmental remediation.

	1990	
US EPA	PCB violations, Lex Campus	$27,250
US EPA	PCB violations, Med Center	$48,250
	1991	
KY Div. of Water	Jet fuel release	$1,330
	1992	
KY Div. of Waste Mgmt.	Hazardous waste violations	$20,000
	1993	
KY Div. of Waste Mgmt.	Hazardous waste violations	$5,000
	1995	
KY Labor Cabinet (KOSH)	Asbestos violation, Admin Building	$500
KY Div. for Air Quality	Incinerator violation, Med Center	$5,000
	1996	
KY Div. for Air Quality	Asbestos violation, Central Htg Plant	$12,500
KY Labor Cabinet (KOSH)	OSHA violations, Central Htg Plant	$18,000
US EPA	PCB violations, Lex Campus*	$22,597
	1997	
KY Div. of Waste Mgmt.	Hazardous waste violations	$25,000
	1998	
KY Labor Cabinet (KOSH)	Asbestos violation, Taylor Ed Building	$5,625
	1999	
KY Div. of Waste Mgmt.	UST violations, Med Center	$1,500
	2005	
KY Div. for Air Quality	Air permit violations, BBSRB/CUP	$50,000
	Total	**$242,552**

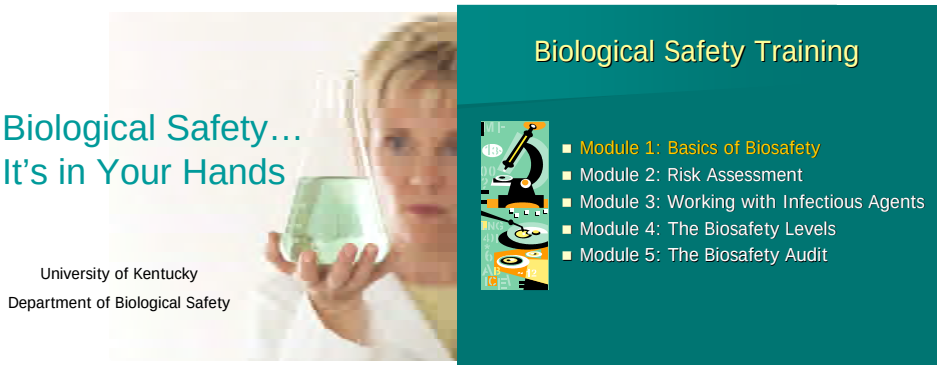
* Includes a penalty payment of $3,600 and a Supplemental Environmental Project of $18,997 (for removal of a PCB transformer at Gillis Building).

Report of the
Biological Safety Department

Department of Biological Safety
Annual Report
Fiscal Year 2005-2006

Major Goals and Accomplishments

Development of On-line Biological Safety Training An on-line biosafety training program for the campus community was developed and is currently available on-line, http://ehs.uky.edu/classes/biosafety/class.html. This training consists of five modules which address all aspects of biological safety. The training is quite comprehensive and provides information on performing experiments safely, meeting registration and regulatory requirements, and resources for finding additional information. The training was reviewed and approved by the Institutional Biosafety Committee (IBC). In addition, the IBC mandated that beginning August 2, 2006, all UK researchers and laboratory personnel would be required to complete the training. This requirement will be phased in over a three year period. Upon submission of new protocols, modifications to existing protocols, or submission of renewals, Principal Investigators and their staff will be required to complete the training. Protocols are renewed every three years, therefore the campus community should be fully trained by 2009.

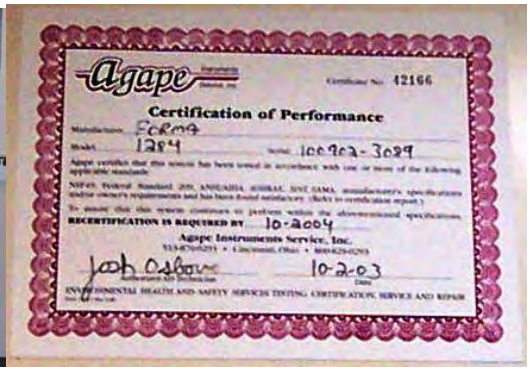


Revision of Biosafety Manual A complete revision of the University's Biosafety Manual was completed. The original document was approved by the IBC in February 1996 and consisted of an eight page overview of biological safety practices at the University. Over the past ten years the field of biosafety has advanced considerably and the Department of Biological Safety at UK has experienced tremendous program development. The new Biosafety Manual reflects these changes. The revised manual provides in-depth information on the principles and practices of biological safety for researchers at UK. The comprehensive thirty-nine page document was reviewed and approved by the IBC and is currently available on the Department of Biological Safety website, http://ehs.uky.edu/hmm/biosafety_manual.html.

Reduction in Expired IBC Registrations Requiring Renewal Notifications were sent to 59 researchers who were due for renewal of IBC registrations. A total of 34 IBC registrations were renewed during FY 2005-2006. A total of 17 researchers who received renewal notifications were deemed inactive. Overall, the backlog of delinquent IBC protocols was reduced by 86 percent.

Coordination of Certification of Biological Safety Cabinets on Campus The bidding process for a biological safety cabinet (BSC) service contract was successfully completed. Contracts were awarded to four vendors for servicing BSCs on campus which included: AGAPE, Precision Air, Biomedical Safety Consultants, and ENV Services. An on-line survey was developed and disseminated to the campus community to aid in the location and identification of BSCs requiring certification. Currently there are 377 BSCs in the UK inventory. Work continues with the Provost's office to have all BSCs tagged and

placed into the eBARs tracking system. Campus wide BSC certification was successfully coordinated through the Department of Biological Safety. The contract was reviewed and revised to allow for better quality control of vendor services. The revised contract was renewed for one year.



Significant Projects

Autoclave Verification Program Continuing efforts were made to increase compliance with the Autoclave Verification Program. Training in autoclave use and participation in the verification program was provided to 79 individuals. Discounted pricing for verification supplies was finalized with UK Stores and this information was disseminated to program participants. An audit of autoclave facilities was conducted six months after the introduction of the program. More than 70% of autoclave facilities were found to be in complete compliance with the autoclave verification program. Training and audits will proceed until all autoclave facilities are completely compliant.

Developed Additional Materials for Biological Safety Website Additional Fact Sheets and information were added to the departmental website throughout the year.
Additions included:

- Replication Competency Testing for Viral Vectors Fact Sheet
- Secondary Containment Devices Fact Sheet
- Revision of Surplusing Lab and Medical Equipment Fact Sheet

Developed Minors in Laboratories Policy A policy was developed to govern the work performed by minors in research laboratories on campus. This policy ensures that minors receive proper training and are barred from highly hazardous procedures. In addition, the policy ensures that EHS receives notification regarding all minors in laboratories on campus. The policy was approved by the IBC, the Chemical Safety Committee, Office of Legal Counsel, and the Committee on Safety and Environmental Health.

Collaborated with the Translating Research to Youth through Information Technology (Try It) Program Collaboration resulted in the development of a training program for high school students involved in science on campus to be submitted with the grant proposal for this project. This program will ensure that students have a basic understanding of laboratory safety.

Created UKBiosafety Listserv A Listserv was developed to provide a convenient means of disseminating biosafety information to the UK campus community. To date the Listserv has 18 subscribers. Efforts continue to make this a viable means of communication with research personnel.

Developed a Poster for Presentation at the ABSA 2005 Annual Conference A poster entitled, *Containment Challenges: What Bluebirds and Rodent Spinal Cords Have in Common*, was developed and presented at the 2005 Annual Conference of the American Biological Safety Association.

Developed and Implemented Surplus Property Tracking and Training System Potentially biohazardous equipment was being delivered to the UK Surplus Warehouse. Investigations into the source of this equipment led to the development of a plan to decrease or eliminate the problem. All equipment must now be tagged with a clearance from the appropriate EHS department prior to movement to surplus. A training program was developed to inform MCPPD, PPD, and third party furniture movers about the importance of not moving potentially contaminated equipment. Training was provided in a CD format to specific supervisors responsible for relaying the information to personnel. All departments; Biological Safety, Environmental Management, Occupational Health and Safety, and Radiation Safety were involved in the process.

Regulatory Events

Successful Renewal of Select Agent Registration The Centers for Disease Control and Prevention completed a thorough inspection of Select Agent facilities at UK on December 1, and 2, 2005. This inspection was part of the renewal process for the University's Select Agent registration. The inspection resulted in several minor issues with the Select Agent program which the CDC required the Responsible Official, Marcia Finucane, to address. The issues were addressed through the revision of practices and procedures in the Select Agent facilities, additional training of faculty and staff working in these areas, and revision of some policies and SOPs. A formal response was prepared and presented to the CDC. The University was granted a renewal of the Select Agent registration.

Revision of Biosafety Level 3 (BSL-3) Laboratory Standard Operating Procedures A complete revision of the standard operating procedures for the BSL-3 research facility was completed. The revisions included information suggested by the IBC, CDC, and BSL3 researchers. The revision was reviewed and approved by the IBC and copies were made available to all researchers working in the BSL-3 facility. Revision of these SOPs ensures the University's compliance with the CDC Select Agent regulations.

Completed First Table-Top Exercise for Select Agent Program As required per 42 CFR § 73.11 (f), a table-top training exercise regarding emergency procedures in the BSL-3 facility was held. Members of UK Public Relations, Lexington Emergency Response, UK Police, and BSL-3 Laboratory Personnel participated in this table-top exercise. This exercise was an opportunity to go through each step in the emergency response to a medical emergency in the BSL-3 facility. The exercise led to discussion and revision of the current procedures.

Received a Request from the Sunshine Project for IBC Meeting Minutes The Department received a request from the Sunshine Project, a non-profit organization that examines research on recombinant DNA, for copies of IBC meeting minutes from May 2003 to present. The Office of Legal Counsel was

consulted and they handled the redaction and dissemination of the minutes to ensure compliance with open records laws and National Institutes of Health Guidelines.

Other Activities

Research Irregularities and Serious Laboratory Incidents Investigated The Department responded to incidents in the laboratories. Many of these incidents involved the supervision of disposal of potentially biohazardous material. In addition to responding to more incidents, a better tracking system was put into place to monitor this activity.

Facility Consultations The Department experienced an increase in the number of facility consultations performed. A large percentage of these consultations resulted from the Biological Safety Officer (BSO) collaborating with the Office of the Executive Vice President for Research and the Office of the Provost on an NIH grant for a new BSL-3 facility. In addition, researchers moving into the new BBSRB facility required a large amount of training and consultation. Considerable hours were devoted to facility consultations. These consultations focused on construction of new lab space, resolution of problems with existing laboratory spaces on campus, and attendance of building safety committee meetings. A new tracking system has been instituted to track these activities more closely during the next Fiscal Year.

Institutional Biosafety Committee

IBC Protocols Approved/Registered:	91
° New	45
° Renewals	32
° Modifications	14
° Registration with BSO Only	38
Approved Protocols in Database	489

Training Presented

The Department experienced a significant increase in the number of individuals trained due to the opening of a new facility on campus. Emphasis was place on training for the Autoclave Verification program and the Select Agent program. The autoclave training assisted in ensuring the successful launch of the verification program on campus. Select Agent training is required annually by everyone involved with the program including researchers, PPD, UKPD, and Lexington Emergency Responders. The on-line Biosafety Cabinet training was also very successful in providing important training to researchers on campus. The newly implemented on-line biosafety training modules should prove to be a dynamic training tool in increasing the number of people trained.

- Orientation and safety training for researchers and their staff members moving into BBSRB: what to do before the move, how to update compliance documents, safety issues in the open lab. 8 attended.
- Select Agent training, including initial training and annual refresher training. 98 attended in 12 sessions.
- Integrated safety training (General Safety: Lee Poore, Infection Control: Sharon Berry, Biological Safety: Marcia Finucane) presented to staff of Communications Department. 32 attended.
- Biosafety training to graduate students in Center for Nutritional Sciences. 20 attended.
- Autoclave use and Verification Program training. 61 attended.
- Customized biological safety training for a laboratory in Nutritional Sciences. 9 attended.
- Autoclave users training; Combs building, HSRB. 18 attended in 3 sessions.
- Autoclave verification program participants training; Combs building, BBSRB, Sander-Brown, Medical Sciences. 7 attended in 4 sessions.
- Training for the Public Relations Department concerning Select Agents at UK. 15 attended.
- Safety training for hospital employees involved in a gene therapy clinical trial at UK. 15 attended.
- On-line Biological Safety Cabinet Training. 86 completed.

Professional Development Activities

Marcia Finucane, MS, Biological Safety Officer, Responsible Official

Attended the following courses, presentations, and meetings:

- BSL3 Procedure Training, Emory University, Atlanta, GA
- Pandemic Influenza Task Force Meetings, University of Kentucky
- BBSRB Safety Committee, University of Kentucky
- Clinical Research Organization Presentations, UKMC
- Central Kentucky Area Pandemic Flu Summit, Lexington, KY
- Tradeline Containment Lab Conference, St. Petersburg, FL
- EH&S Academy by Dr. Bob Emery, Louisville, KY

Presented at the following meetings:

- 49th Annual ABSA Conference, Poster on Biosafety Containment
- Human Research Subject Protection, NIH Workshop on IBCs, Boston, MA
- 9th Annual American Society of Gene Therapy, Baltimore, MD

Maintained professional registrations:

- Medical Technologist (MT), American Society for Clinical Pathology (ASCP)
- Certified Biological Safety Professional (CBSP), American Biological Safety Association (ABSA)

- Specialist Microbiology (SM, National Registry for Microbiologists (NRM)

Maintained membership in professional organizations:
- American Society for Microbiology, ASM
- American Biological Safety Association, ABSA
- Midwest Area Biosafety Network, MABioN

Brandy Nelson, MS, Biological Safety Specialist Senior

Attended the following courses, presentations, and meetings:
- Pandemic Influenza Task Force Meetings, University of Kentucky
- BBSRB Safety Committee, University of Kentucky
- Clinical Research Organization Presentations, UKMC
- Central Kentucky Area Pandemic Flu Summit, Lexington, KY
- CDC 9th National Symposium on Biosafety, Atlanta, GA
- Principles and Practices of Biosafety, ABSA, St. Paul, MN

Maintained membership in professional organizations:
- American Biological Safety Association, ABSA
- Midwest Area Biosafety Network, MABioN

Derek Adams, BS, Biological Safety Specialist

Attended the following courses, presentations, and meetings:
- Dual-Use Research, NSAB, Bethesda, MD
- Principles and Practices of Biosafety, ABSA, Cambridge, MA
- BBSRB Safety Committee, University of Kentucky
- GCRC Presentation, Dr. William Balke, UKMC
- Bioethics Lecture, University of Kentucky
- CDC 9th National Symposium on Biosafety, Atlanta, GA
- Microsoft Office Access 2003 Level II Training
- Basic Radiation Safety Training, UK
- Graduate Education for MPH_EHS at EKU, 18 hours completed.

Presented at the following meetings:
- Community on Environmental Stewardship Quarterly Meeting, EKU

Maintained membership in professional organizations:
- American Biological Safety Association, ABSA
- Midwest Area Biosafety Network, MABioN
- Kentucky Public Health Association, KPHA

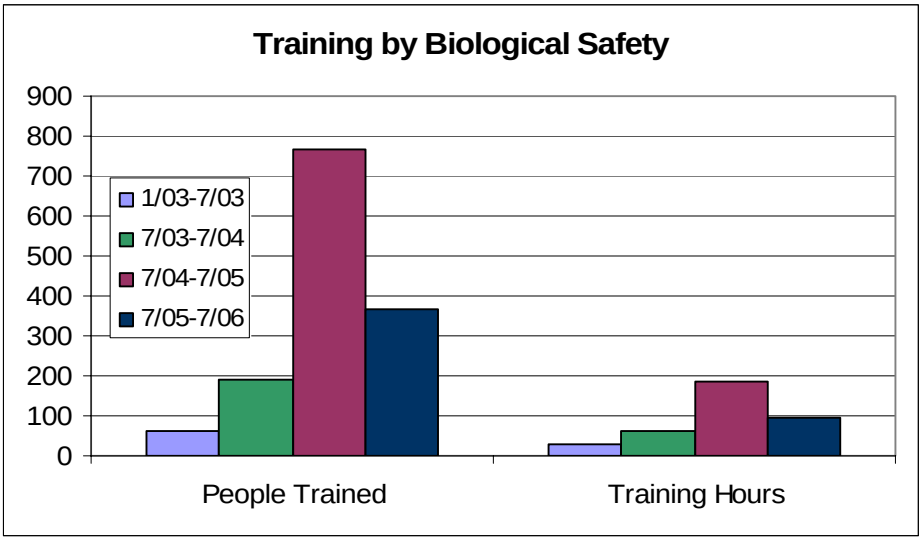
Key Indicators for Biological Safety: 2005-2006

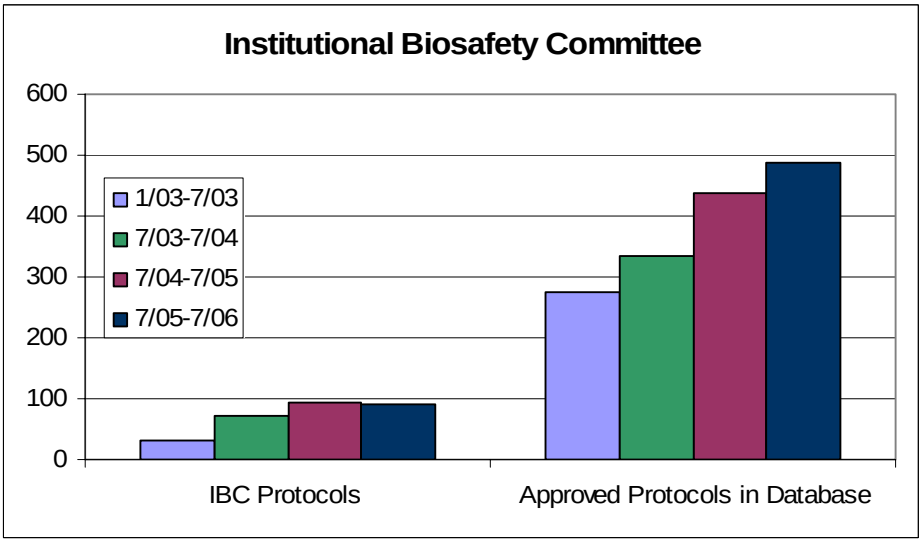
I. Institutional Biosafety Committee		Total
IBC Protocols Approved/Registered:		91
• New		45
• Renewal		32
• Modification		14
• Registration Only		38
Approved Protocols in Database		489

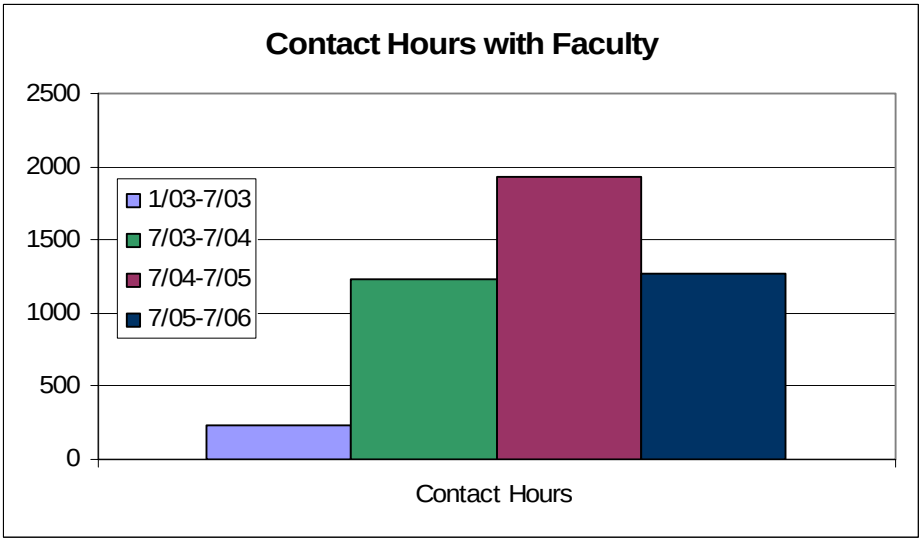
II. Biosafety		
Laboratory Audits Completed		71
People Trained by Biological Safety		369
New Training Modules		1
Programs Expanded		2

III. Investigations/Incidents	
Research Irregularities Investigated/Supervised Disposals	16
Serious Laboratory Incidents Investigated	3

IV. Contact hours		
Principal Investigators and IBC Registration Review		
• New Protocol Review/Approval	7 hours/each	315 hours
• Basic Registration Review	4 hours/each	152 hours
• Renewal Review or Registration	5.5 hours/each	176 hours
Biosafety Issues		
• Laboratory Audits	2 hours/each	142 hours
• Modification Per Protocol	1 hours/each	14 hours
• Facility Consultations		381 hours
Training Opportunities Presented		
• Biosafety Topics		74 hours
• Select Agent		20 hours
Professional Development		
Training/Workshops/Courses Attended		231 hours







* A new research facility, BBSRB, came on-line in FY 2004-2005 requiring a large amount of training and contact time with faculty and staff in this building.

Report of the
Environmental Management Department

ENVIRONMENTAL MANAGEMENT

Annual Report

FY 05-06

Environmental Quality Management Center

Accomplishments and Major Events

1. A comprehensive training manual was developed for Environmental Management personnel. The manual was designed to serve as the basis for annual refresher training as well as orientation for new employees and contractors working in the hazardous waste storage area.

2. A new hazardous waste tracking system was developed in conjunction with EHS Information Systems personnel to replace older, outmoded software. The system will be used until a permanent replacement is identified and implemented.

3. To improve delivery of hazardous waste services, a new online waste pickup request form was developed. With the new online form, hazardous waste generators now have three options for requesting pickups.

4. On March 15, 2006, personnel from the Kentucky Division of Waste Management conducted a hazardous waste compliance inspection. The University's hazardous waste facility and related waste handling documents were reviewed, and the inspectors toured a total of twenty-eight labs in Agricultural Science Center North, Barnhart Agricultural Engineering Building, Plant Science Building, Chemistry-Physics Building and Dimock Animal Pathology Building. Labeling and container violations were noted in three labs during the inspection but were corrected immediately or within one day. Because the violations were corrected, no enforcement action was taken by the agency.

5. On May 3, 2006, personnel from the Kentucky Division of Waste Management conducted hazardous waste compliance inspections at the Livestock Disease Diagnostic Center, the North Farm Area and the Center for Applied Energy Research (CAER). Inspection and recordkeeping violations were noted at CAER and a Notice of Violation was issued by the state on April 25, 2006. A follow-up inspection by the state on May 3, 2006, revealed that all violations had been corrected and no new violations were observed.

6. On December 2, 2005, representatives of the Centers for Disease Control and Prevention inspected the Select Agent storage area of the Environmental Quality Management Center. Select

Agent handling procedures and documentation were also reviewed. No adverse findings were reported.

7. In the fourth phase of a multi-year project, lead-based paint risk assessments were completed at South Farm, Robinson Forest, Robinson Substation, Western Kentucky Substation, and the Western Kentucky 4-H Camp. Cleanup and other interim controls were performed to remove or reduce hazards associated with lead dust, paint chips and/or soil. Clearance testing conducted following completion of the projects demonstrated that the hazards had been abated. Work is continuing in College of Agriculture housing.

8. A standard operating procedure was developed for bulking and blending flammable liquids, a waste treatment procedure not specifically detailed in the University's hazardous waste permit.

9. Potential employee exposure during hazardous waste consolidation operations was evaluated with assistance from UK Occupational Health & Safety personnel. Exposure levels were determined to be within acceptable limits.

10. The efficiency of solid waste handling at the EQMC was improved by crushing empty steel 55-gallon drums with newly installed equipment. The new procedure also reduces the volume of solid waste being disposed.

11. An emergency asbestos abatement project was completed at Alumni Gym in April 2006 following discovery of damaged and deteriorated asbestos-containing ceiling plaster. The affected area was isolated and an accredited asbestos abatement contractor was retained to remove the damaged plaster.

12. Excavation at the construction site for the new Hospital parking structure uncovered three abandoned underground storage tanks. A certified tank removal contractor removed the tanks and excavated a limited amount of contaminated soil. A closure report was submitted to the Kentucky Division of Waste Management and is currently under review.

13. Monitoring conducted by the LFUCG's Division of Sanitary Sewers indicated that mercury concentrations in wastewater discharged from the Chemistry/Physics Building were above acceptable limits. A corrective action plan was prepared, submitted to LFUCG and subsequently approved. Work is expected to continue in 2006-07.

14. As part of the response plan to address elevated mercury concentrations in wastewater being discharged from Medical Center buildings, the acid dilution pits at the Sanders-Brown Center on Aging were cleaned out in April 2006. Follow-up monitoring will be used to evaluate the effectiveness of that work.

15. A major mercury cleanup project was conducted in the University Hospital Clinical Engineering office suite during February and March 2006. The cleanup was initiated after a mercury spill and was expanded when subsequent monitoring revealed the presence of mercury contamination elsewhere in the space.

16. Environmental Management personnel responded to spills or releases of chemicals and other substances 31 times during the Fiscal Year. Spills occurred in laboratories, clinical settings, parking areas, roadways, dormitories, academic buildings and storage areas. In most cases, spilled materials were treated with neutralizing agents or absorbents and then cleaned up for proper disposal.

17. Improper disturbance and/or removal of known or presumed asbestos-containing materials took place at several locations (listed below). Both contractor and UK personnel were involved. Although the circumstances vary, in each case an investigation was performed and remedial measures including, but not limited to, cleanup, additional education, and awareness, were provided.

    - 515 Oldham Court (disturbance of floor tile and mastic)
    - 1101 South Limestone Street (disturbance of plaster)
    - 915 South Limestone Street (disturbance of floor tile and mastic)
    - Blanding I dormitory (ceiling failure)

18. Closure was received from the Kentucky Division of Waste Management in February 2006 on an underground storage tank removal project completed at the former LR Cooke Chevrolet property in downtown Lexington.

Other Activities

1. Assisted the Chemistry Department with selection and transportation of surplus chemicals from a facility in Madison County, Kentucky.

2. Facilitated an environmental assessment update for the Lexel Imaging facility at the Coldstream Research Campus.

3. Supported the College of Pharmacy on waste and wastewater issues during commissioning of the new Center for Pharmaceutical Science and Technology at the Coldstream Research Campus.

4. Provided support to the College of Agriculture during design and procurement of a new tissue digester at the Livestock Disease Diagnostic Center.

5. Assisted the College of Agriculture with excavation and disposal of oil-contaminated soil at the Woodford County Animal Research Center.

6. Inspected Surplus Property warehouse on a monthly basis for the presence of hazardous materials and/or asbestos.

7. Conducted semiannual wastewater compliance monitoring in accordance with requirements of the University's wastewater discharge permit.

8. Performed perchlorate salt testing in fume hood exhaust ducts.

9. Assessed potentially contaminated water generated by the Hospital Emergency Department in its chemical decontamination unit.

10. Facilitated tours of the EQMC by representatives of the Lexington Fire Department, the FBI, LFUCG, Bluegrass Partnership for a Green Community, and the UK College of Public Health.

11. Monitored compliance of underground storage tank leak detection methods.

12. Assisted the Physical Plant Division and Medical Center Physical Plant Division with wastewater discharge permit applications.

13. Reviewed and revised classroom and online materials for DOT/IATA training.

14. Prepared and submitted hazardous waste annual reports, tax assessments, and facility registrations.

15. Renewed the University's asbestos abatement certification.

16. Coordinated payment of underground storage tank registration fees.

17. Revised and updated the University's Groundwater Protection Plan and conducted required annual inspections.

18. Completed and submitted SARA Title III Tier II and Tab Q-7 forms.

19. Coordinated wastewater monitoring at the Garrigus Building to investigation short-term spikes in BOD concentrations.

20. Assisted the College of Agriculture in responding to wastewater permit violations at the North Central and Lake Cumberland 4-H camps.

Key Indicators and Routine Functions

1. Hazardous Waste

- Hazardous waste generators – **571** locations
- Waste shipments – **171,289** pounds of regulated waste
- Waste disposal costs - **$91,263**
- Waste pickups – **9,985** containers

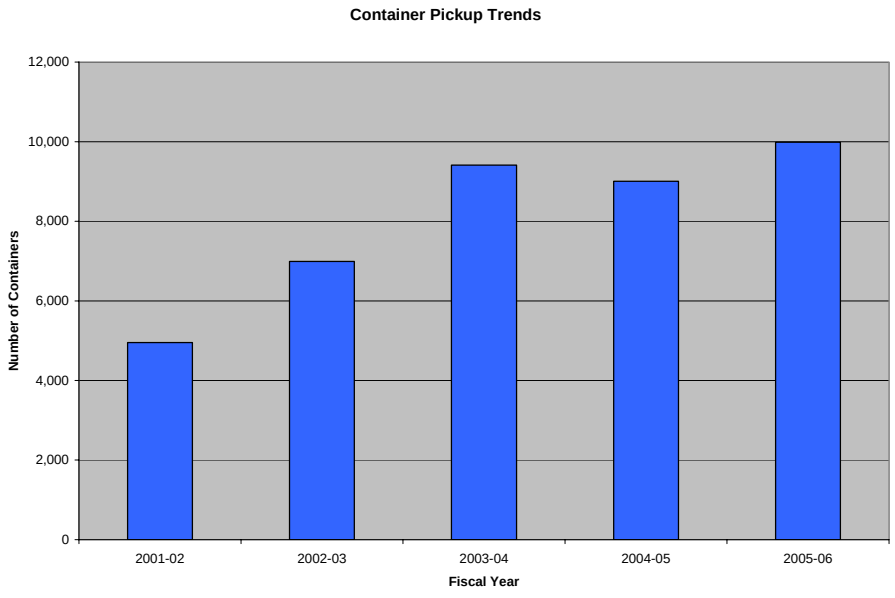


Table 1

Total UK Regulated Waste Disposal

Fiscal Year	Disposal Cost ($)
1996-97	317,591
1997-98	254,932
1998-99	226,506
1999-00	95,668
2000-01	99,226
2001-02	119,938
2002-03	107,809
2003-04	113,444
2004-05	76,574
2005-06	91,263

Note: Figure for 2001-02 includes $15,392 for disposal of contaminated soil from Barker Hall.

Table 2

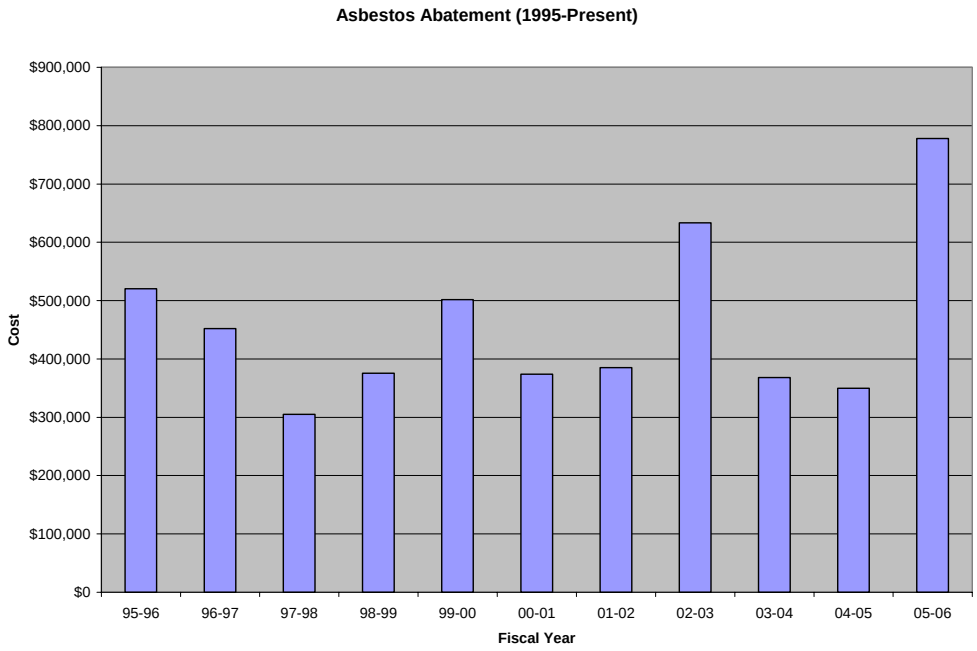
Hazardous Waste Disposal Per Calendar Year (in Pounds)

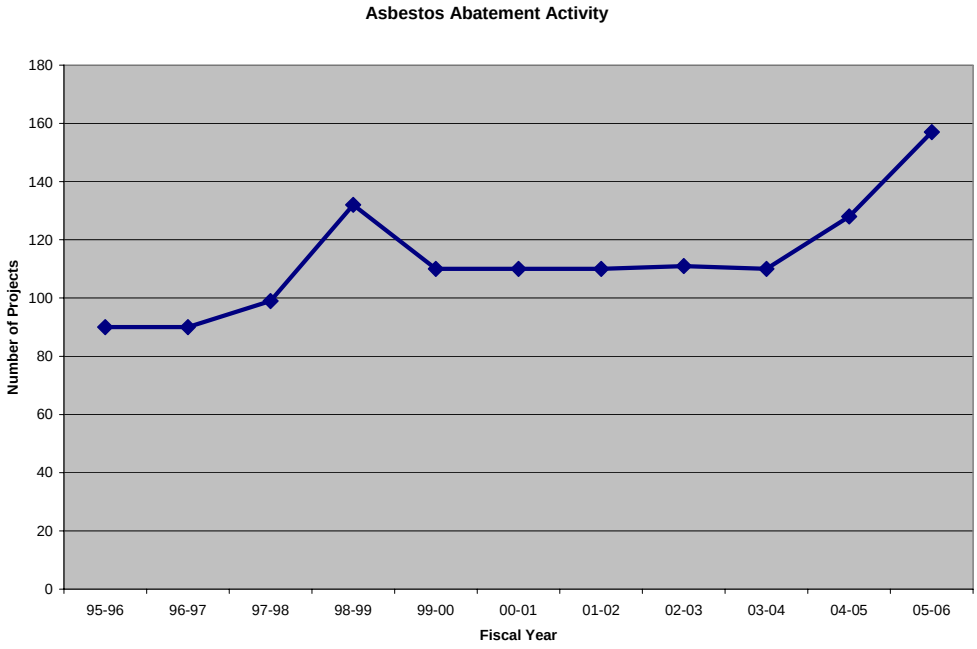
Calendar Year	Campus	*CAER*	North Farms	Animal Diagnostics
1996	113,222	1,476		2,701
1997	146,812	25,650	6,646	4,374
1998	109,558	2,085	7,776	5,084
1999	76,875	4,949	500	4,400
2000	98,926	3,434	1,900	4,401
2001	427,162[1]	3,407		4,551
2002	121,531	2,926	800	3,200
2003	156,795	1,301		3,461
2004	114,171	3,161	3,400	3,185
2005	137,954	926		3,953

[1]*Includes 345,800 pounds of waste from the Barker Hall cleanup project*

2. Asbestos/Lead

- Asbestos abatement – **157** projects totaling approximately **$778,246**
- Sampling for asbestos & lead-based paint – **774** samples (**$18,703** survey/testing cost)
- Lead-based paint risk assessments – **9** locations



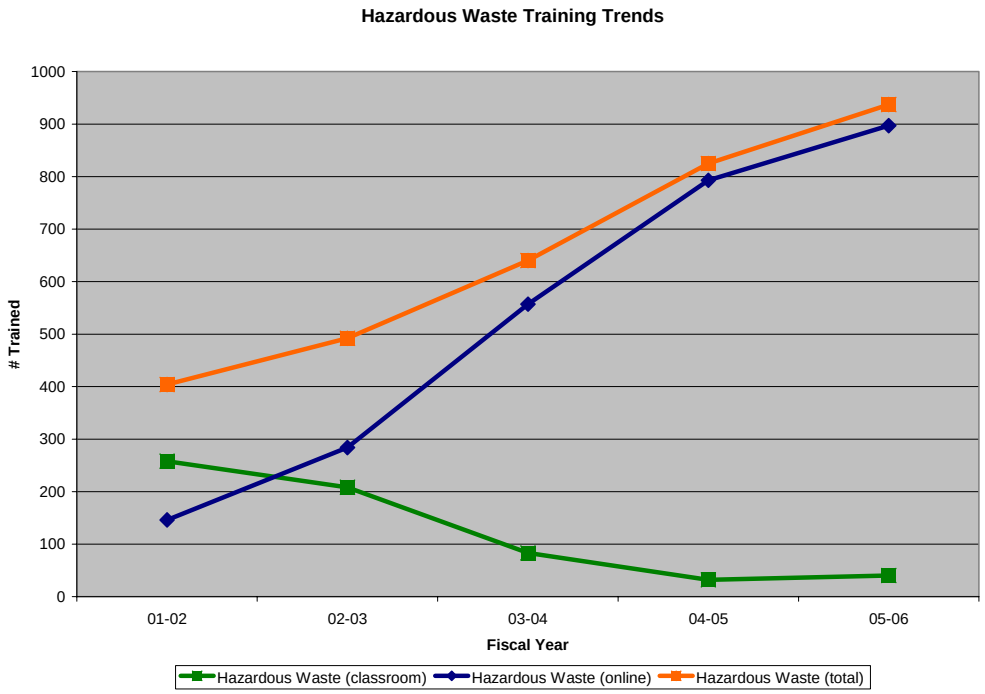


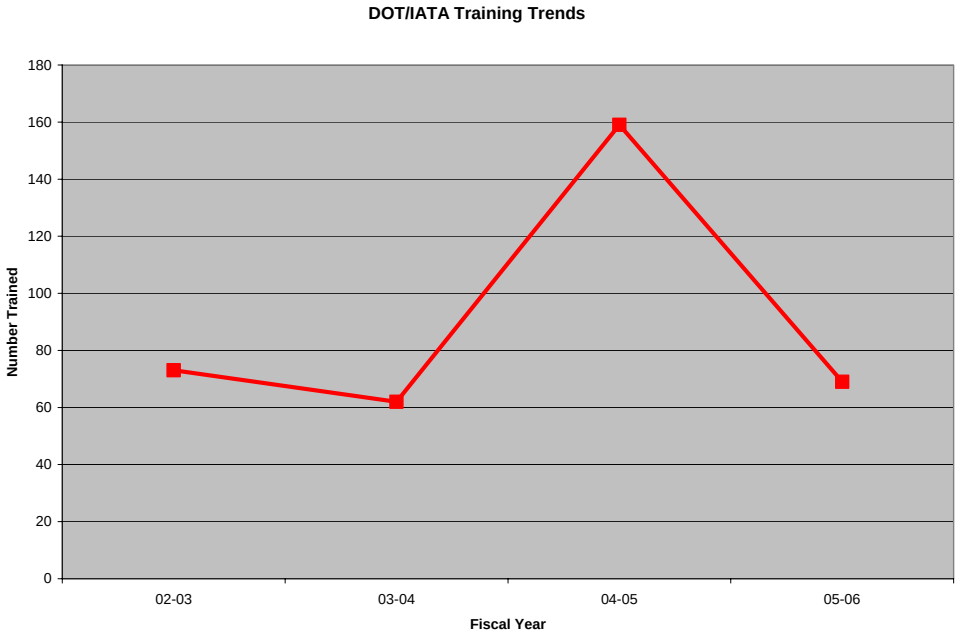
3. Environmental Protection

- Environmental sampling (air, radon, water, soil, waste, etc.) – **1,300** samples
- Groundwater Protection Plan inspections – **19** locations
- Environmental remediation costs - **$146,958**

4. Training

- Hazardous waste training – **937** attendees (up 14% from last year)
- DOT/IATA training – **69** attendees
- Asbestos awareness training – **67** attendees
- Lead-based paint awareness training – **51** attendees





Waste Minimization

- **Waste Treatment**

Acids / bases neutralized	5,252 pounds
Oxidizers reduced	54 pounds
Gas cylinders treated	132 cylinders
Aerosol cans recycled	100 cans
Total Savings	**$36,485**

- **Recycling**

Fluorescent bulbs	16,665 pounds
Oil and antifreeze	605 gallons
Batteries – to UK community	787
Batteries – to off-site vendors	1,450
Glass bottles	1,540
Good chemicals	13
Thermometer exchanges	62

Laboratory Moves

Date	Location / PI	Quantity
7/1/05	Dickson	33 boxes
7/1/05	MS-635	9 boxes
7/5/05	Ozcan	13 boxes
7/5/05	Vanaman	17 boxes
7/6/05	Dickson	38 boxes
7/6/05	MN-613	5 boxes
7/7/05	Moncman	23 boxes
7/12/05	McCann	4 boxes
7/15/05	MS-665	5 boxes
8/4/05	Dwoskin	32 boxes
9/19/05	Fenton	12 boxes

Laboratory Cleanouts

Date	Location / PI	Number of Containers
7/11/05	Combs 333 / Ballard	75
7/14/05	MS-608 / Hersh	173
7/22/05	MS-610 / Rush	26
8/16/05	N-305 Ag Science North	415
8/17/05	N-9 Ag Science North	52
8/19/05	MN-663 / Dickson	48
8/29/05	Insectary / Southgate	266
11/11/05	Whalen 204 / Keane	145
12/5/05	818 Garrigus / True	181

Household Cleanouts

Location	Number of Items
152 Transcript Avenue	36
154-156 Transcript Avenue	30
144-148 Transcript Avenue	100
115-121 Conn Terrace	48

University Service and Professional Development

Mike Blackard

- Staff Senate – Precinct 19 representative
- Maintained Commercial Drivers License with Hazardous Materials endorsement
- Maintained accreditation as a Senior Level Certified Hazardous Materials Manager
- Maintained accreditation as an Asbestos Inspector
- Attended training course on DOT regulations
- Academy of Certified Hazardous Materials Managers – Member

Brian Butler

- Attended College/University Hazardous Waste Conference
- Attended 8th Annual Kentucky Environmental Permitting Conference

Lee Faulkner

- Maintained accreditation as a Senior Level Certified Hazardous Materials Manager
- Began work toward Masters Degree in Loss Prevention & Safety
- Completed training courses on DOT/IATA regulations
- Attended ACHMM Conference
- Academy of Certified Hazardous Materials Managers – Member

Tommy Taylor

- Maintained accreditation as an Asbestos Inspector / Management Planner
- Maintained accreditation as a Lead-based Paint Inspector / Risk Assessor
- Began work toward Masters Degree in Loss Prevention & Safety

Woody Bottom

- Provided guest lecture in CPH 601 class
- Maintained registration as a Professional Geologist authorized to practice in the Commonwealth of Kentucky

- Maintained accreditation as an Asbestos Inspector/Management Planner
- Maintained accreditation as a Lead-based Paint Inspector/Risk Assessor
- Represented the University on the Local Emergency Planning Committee
- Represented the University on the Bluegrass Partnership for a Green Community
- Served on the Committee on Safety & Environmental Health and Hospital Environment of Care Committee
- Attended 4th Annual Kentucky Environmental Conference
- Attended 8th Annual Kentucky Environmental Permitting Conference
- Attended EHS Academy
- American Society of Testing and Materials – Member
- American Society of Safety Engineers – Member
- Environmental Information Association – Member

Report of the
Occupational Health and Safety Department

Occupational Health & Safety
Accomplishments/Events

01JUL05 – 30JUN06

1. Revised classroom Chemical Hygiene/Laboratory Safety training course.

2. Consulted with and provided guidance for 2 pregnant graduated assistants.

3. Reviewed all new construction and renovation projects for safety and health implication. Projects included but were not limited to: Basketball Practice Facility, College of Pharmacy Complex, BBSRB 4th floor fit-up, RB3 fume hood project, Patient Care Facility, LDDC digester, and CAER pole barn.

4. Contributed 3 people and over 18 hours to National Fire Safety Awareness project in the Fire Marshal's office.

5. Instructed chemistry graduate students in 5 hours of CHE 772 seminar on chemical health and safety.

6. Two vacancies in the department were filled (Safety Specialist and Chemical Safety Technician).

7. Assisted Chemistry Department in determining need, liability, and safety of accepting chemicals and equipment as gifts.

8. Increased number of industrial hygiene samples by 136 percent from 87 to 206. Sampling occurred in but was not limited to: Art Department, Regulatory Services, Biological Sciences, Wethington, Chemistry Department stock room, Clinical labs bulking operation, and helicopter exhaust in Radiation Medicine.

9. Conducted ventilation study of BSL-3 to determine air tightness of space under decontamination conditions.

10. Assisted Fire Marshal in the safety review of College of Pharmacy autoclave and oversaw issuance of hot work permit during maintenance activity.

11. Instituted a weekly physical review of all construction perimeters to correct safety issues that might affect UK employees, students, or visitors. Generated corrective action emails to project managers.

12. Instituted weekly review of Accident reports and First Report Online database. Accident investigations were initiated when necessary.

13. Specified new multi-gas monitor for Environmental Management and trained employees on its use for spill responses.

14. Conducted 51 indoor environmental quality investigations. Those reports included but were not limited to UK Medical Center room MN677 mold remediation, Chi Omega house, Fine Arts 151, Barnhart 169, Morgan County Technology Center, and Carnahan House.

15. Surveyed MCPPD safety procedures and fall protection for windsock change out on helicopter pad. Made minor changes and recommendations to procedures.

16. Responded to several gas leak complaints on campus including but not limited to 1 in MCPPD and 3 in the Chemistry Department involving thiol research. The latter complaints resulted in a full hazard assessment of the project and the development of a scrubbing system to breakdown the sulfur hydrogen bond.

17. Continued increase of bioaerosol monitoring to identify sources of odor complaints and reduce time devoted to these issues. Areas monitored this year were MRISC, Wethington, SCOBIRC and KY Clinic.

18. Maintenance schedule for IH equipment was 100 percent completed.

19. Created database for safety inspections; identified and conducted 12 surveys and issued 7 findings.

20. Assisted in training of new College of Pharmacy Safety Officer.

21. Continued Safety training initiative by working with Human Resources to identify new employees that need training. Job numbers were used and College of Engineering was the first area of focus.

22. Completed 100 percent of laboratory inspection schedule. All reports were issued and end of the year numbers compiled and presented to the Committee on Environmental Health and Safety.

23. Worked with Chemical Safety Committee Chair in hosting and facilitating four committee meetings.

24. Completed online Respiratory Protection training program.

25. Enhanced OHS web tools by posting table of lab inspection violations and fume hood monitors operations page. Additionally updated 15 Passenger Van, office ergonomic, and Chemical Hygiene Plan/Lab Safety training modules.

26. Responded to mercury spill in Hospital Clinical Engineering and identified mercury contamination from previous operations. Provided exposure oversight and assisted in the remediation and re-occupation of the space.

27. Completed required annual respirator fit-testing of all affected DLAR employees.

28. Collaborated on the development of Surplus Training Course and handouts to prevent the transport of contaminated equipment to surplus.

29. Assisted Fire Marshal in noise assessment of pyrotechnic show in Rupp Arena.

30. Advised Hospital TB Task Force on respiratory protection requirements.

31. Compiled and reviewed benchmark universities smoking policies and drafted new Smoke Free Policy. Policy was submitted to Administrative Regulations Committee.

32. Compiled injury and illness data quarterly and posted information to web site. Additionally completed the 2005 Bureau of Labor Statistics Injury and Illness Report survey.

33. Instructed 18 College of Architecture and Horticulture department students in construction safety.

34. Completed 100 percent of Chemical Fume Hood Survey schedule and developed an SOP for evaluating Surgical Pathology grossing stations.

35. Hosted Diving Control Board meeting in which one scientific diving plan was reviewed and approved.

36. Provided input to U54 Nanotoxicology Consortium grant proposal.

37. Participated in semiannual IACUC inspection of DLAR facilities.

38. Provided individual training and information to new researchers on campus.

39. Developed and presented a basic safety presentation to the Center for Nanoscale Science and Engineering.

40. Conducted survey of CAER and identified respiratory protection needs. Developed SOPs and provided input on these issues to CAER safety committee.

41. Evaluated audiometric test rooms for KY Clinic. A total of 9 rooms were tested, and 2 were cleared for use as audiometric test rooms.

42. Provided technical support for 4 CPST chemical synthesis projects.

43. Assisted in the development of safety procedures for new solvent still in College of Pharmacy.

44. Evaluated Pence Hall woodworking shop renovations and conducted ventilation study of dust collection system.

Major Accomplishments

1. Participated in Accident Review Board/Vehicle Safety Committee and was instrumental part of team that changed policy for 15 passenger van use and training. Solicited and received approval from the Executive Vice President for Finance and Administration to issue letter on changes. A complete inventory of the University's van fleet was performed. Affected departments were notified of new policy for training and van modifications. As a result, 352 new employees were trained on driving passenger vans and requirements for van modifications.

2. Conducted complete safety and health evaluation of Reynolds #1 and Metal Arts facilities within the Art Department. Reviewed all chemical processes, ventilation needs and student exposure potentials. A report was issued detailing items that needed improvement for administration to review and allocate funds.

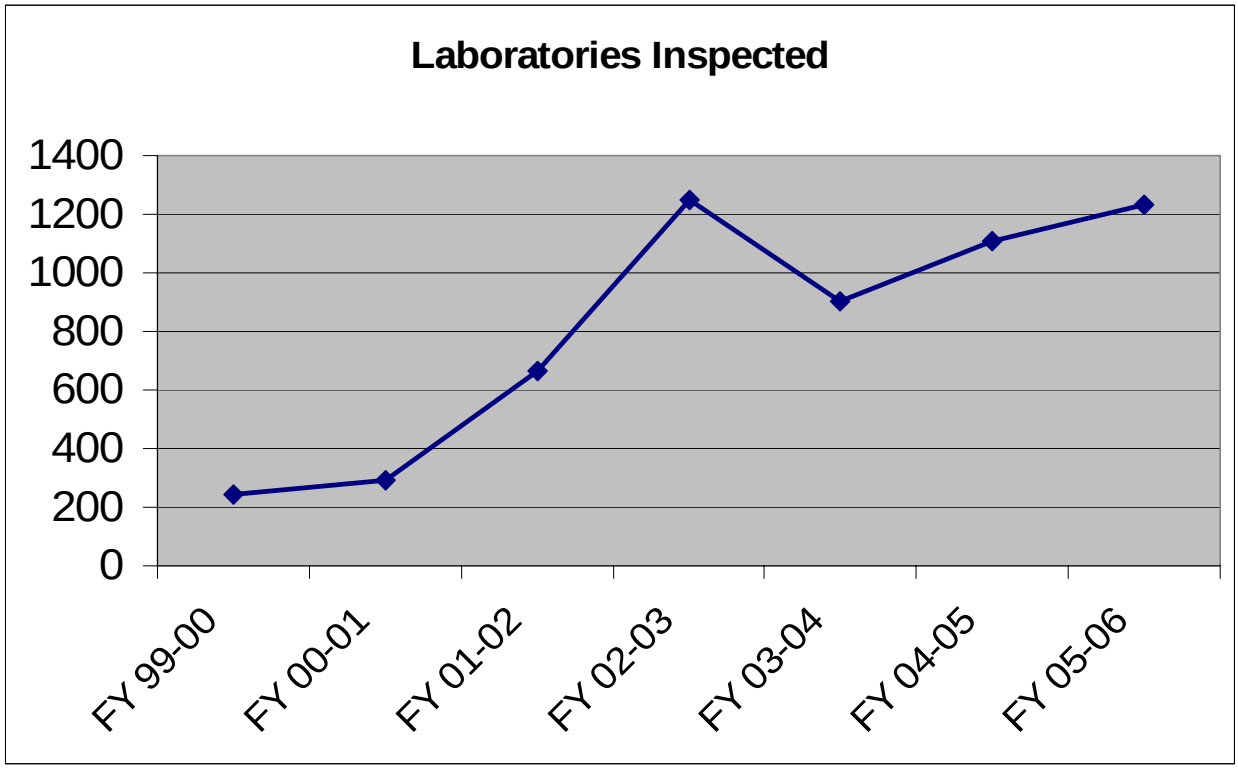
Key Indicators for Occupational Health and Safety

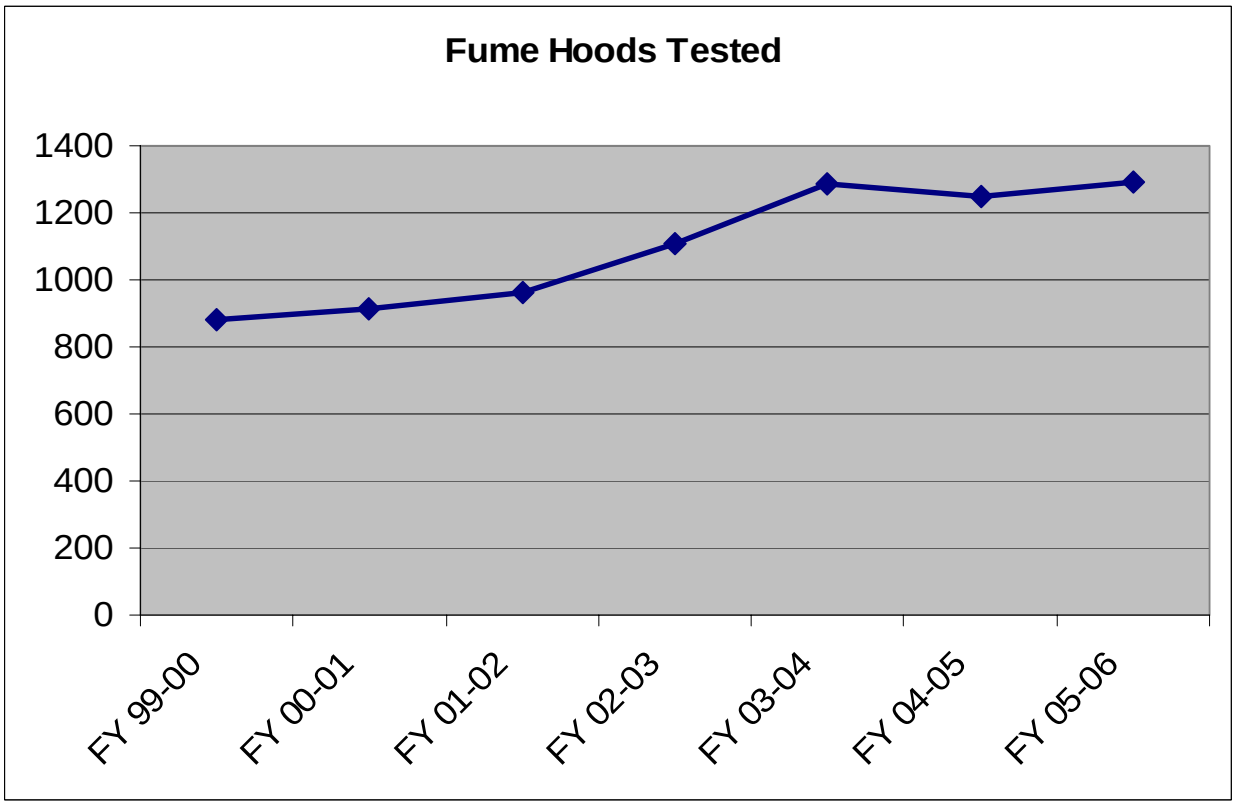
Laboratories in the Chemical Hygiene database	**1,549**
Laboratories inspected	1,234
Fume hoods tested	1,294
IACUC Protocol Reviews	264
▪ New Applications	(172)
▪ Major Modifications	(92)
USAMRMC Grant Proposal Reviews	21
Indoor Air Quality investigations	51
Respirator Fit-tests	91
Industrial Hygiene samples	19
Ergonomic Office Assessments	49
Ergonomic Assessments (non-office)	4

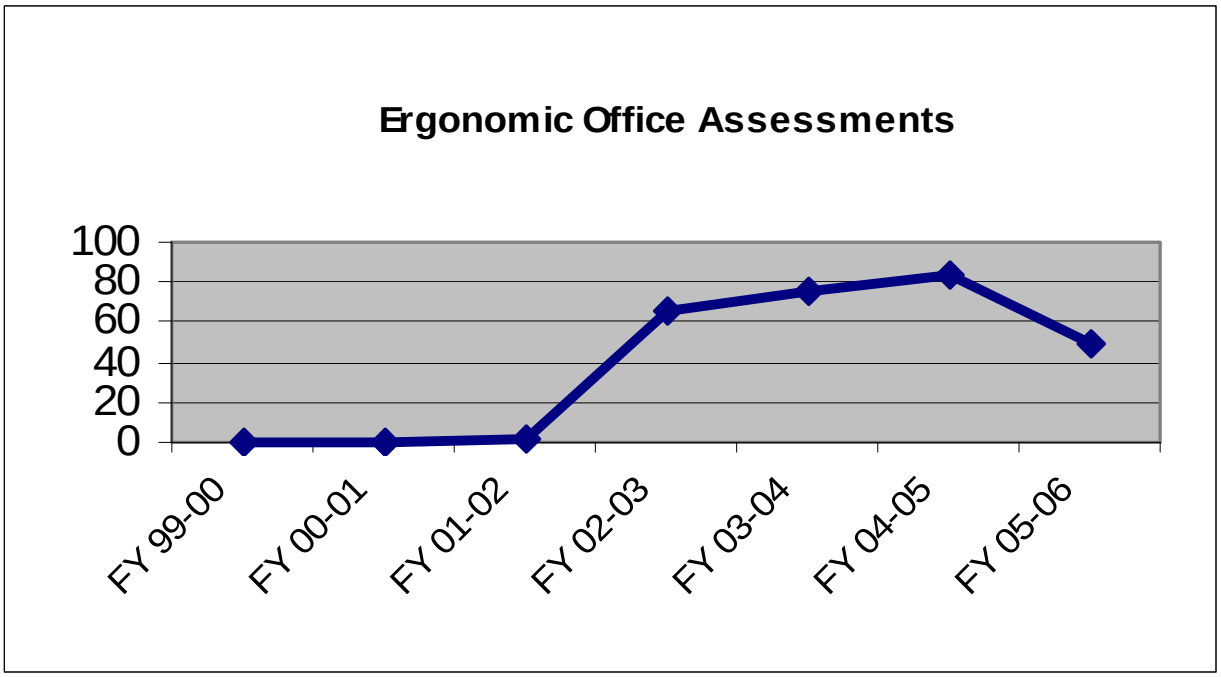
Training Class Attendance

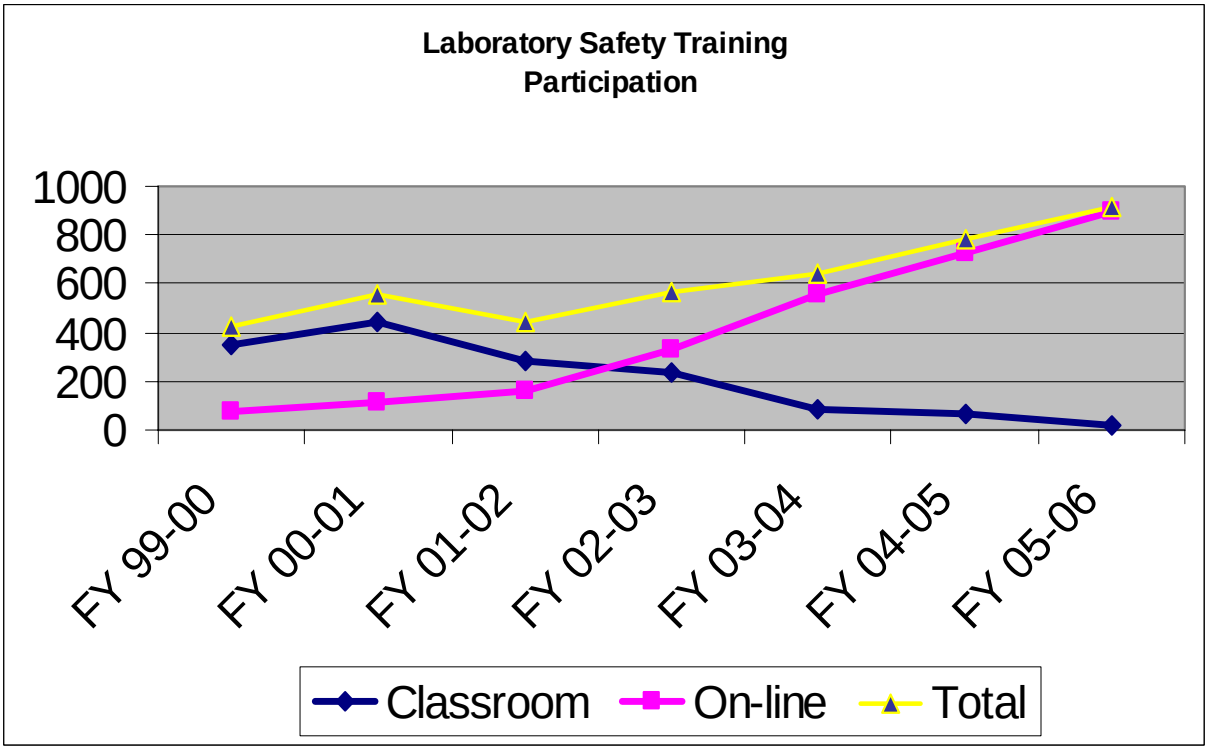
Chemical Hygiene Plan/Laboratory Safety	915
▪ Classroom Training	(19)
▪ On-line Training	(896)
Laboratory Safety (specialized)	
Hazard Communication	306
▪ Classroom Training	(57)
▪ On-line Training	(249)
Hot Work Permitting	59
Respiratory Protection	91
Bloodborne Pathogens (on-line)	861
Ergonomics	18
15-Passenger Van Driver Safety Awareness	352
New Employee Orientation (EHS Section)	1689
SuperVISION (EHS Section)	103
Construction Safety	19
Emergency Eyewash and Shower	87

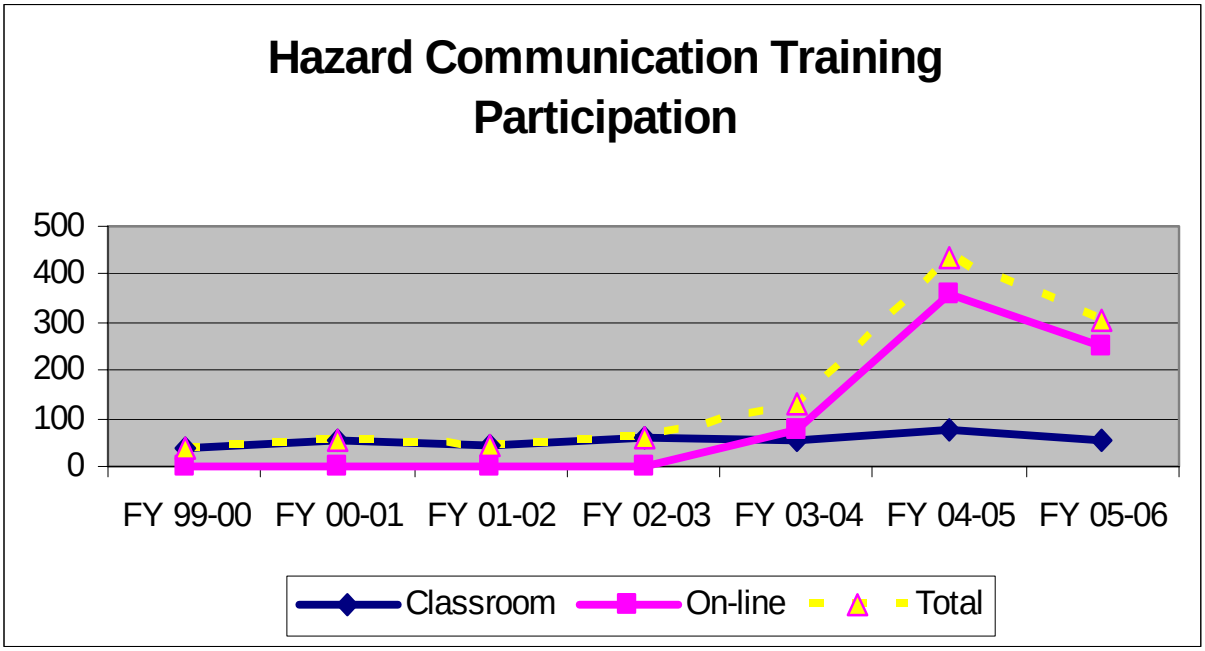
Trends for Select Key Indicators

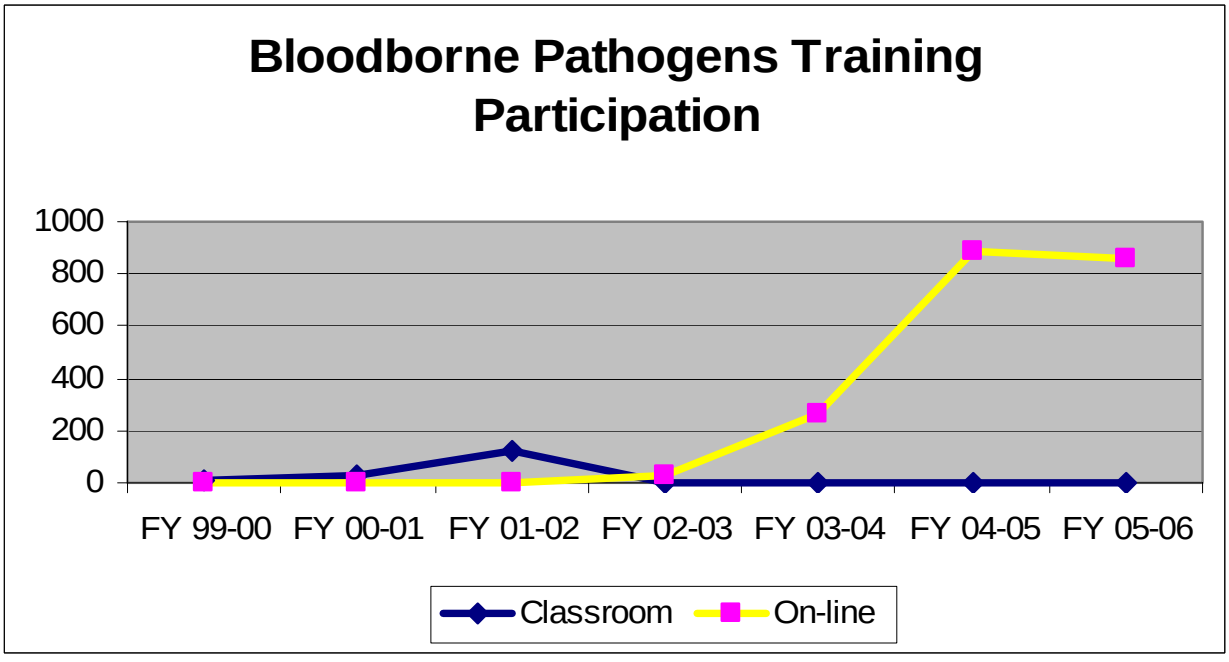





Ergonomic Office Assessments
100
80
60
40
20
0
FY 99-00
FY 00-01
FY 01-02
FY 02-03
FY 03-04
FY 04-05
FY 05-06


Laboratory Safety Training Participation
1000
800
600
400
200
0
FY 99-00
FY 00-01
FY 01-02
FY 02-03
FY 03-04
FY 04-05
FY 05-06
Classroom
On-line
Total


Hazard Communication Training Participation
500
400
300
200
100
0
FY 99-00
FY 00-01
FY 01-02
FY 02-03
FY 03-04
FY 04-05
FY 05-06
Classroom
On-line
Total


Bloodborne Pathogens Training Participation
1000
800
600
400
200
0
FY 99-00
FY 00-01
FY 01-02
FY 02-03
FY 03-04
FY 04-05
FY 05-06
Classroom
On-line

Professional Development and Outreach Activities
Occupational Health and Safety

Lee Poore

- Attended American Industrial Hygiene Conference and Exposition (AIHCE) and participated in a symposium on Nanotechnology: Nanoparticles in the workplace. Also attended professional development course on Elements of Biosafety Level 3 Containment.
- Attended 4th Annual Kentucky Environmental Conference hosted by the Kentucky Chamber of Commerce.
- Completed University of Kentucky SuperVISION training course.
- Maintained certification as a Certified Industrial Hygienist as recognized by American Board of Industrial Hygienists
- Maintained certification as a Certified Chemical Hygiene Officer as recognized by the National Registry of Certified Chemists
- Participated in CSHEMA benchmarking survey
- American Chemical Society – Member

David Acker

- Attended Fundamentals of Industrial Ventilation professional development course.
- Presented IEQ Training course at Kentucky Municipal Environmental Safety and Health Association (KMESHA) Conference.
- American Conference of Governmental Industrial Hygienists – Full Member.

Jan Hamon

- Completed online National Incident Command System (NIMS) training module IS-700.
- Attended College of Public Health 2nd Annual Research Day
- Completed 8 hour Annual HAZWOPER Refresher training.
- Volunteered as Decontamination Controller in the Madison Co. CSEPP drill/exercise

Jason Burns

- Completed online National Incident Command System (NIMS) training module IS-700.

Lorie Jayne

- Completed 8 hour Annual HAZWOPER Refresher training

Academic Participation for School Year

Provided lectures, seminars, etc. in UK courses (contact hours)

Lee Poore (3 hours), David Acker (1 hour), Jan Hamon (1hour)
Chemistry: Seminar in Chemistry - Chemical Safety, CHE-772 (5 hours)

Lee Poore (2 hours), David Acker (2 hours), Jan Hamon (2 hours)
Environmental: Natural/Biological/Medical Sciences in Environmental Systems - ES-620

David Acker (3 hours)
Preventive Medicine and Environmental Health: Respiratory Protection, PM-601

Jason Burns (3 hours)
College of Architecture and College of Agriculture - Horticulture Department: Construction Safety for South Farm building project.

Lee Poore
Acted as Safety Officer for Regional Science Fair

Report of the
Radiation Safety Office

Radiation Safety Office
Annual Report
Fiscal Year 2005-2006

Introduction

The Radiation Safety Officer is required to submit an annual report regarding the state of radiation safety to the University of Kentucky Radiation Safety Committee. The Report for Fiscal Year (FY) 2005-2006 is provided herein.

Significant Occurrences

This is a summary report on major incidents, agency actions, and other regulatory activity involving UK this fiscal year.

Regulatory Inspections

No State agencies inspections were conducted this fiscal year on the broad medical, broad campus or teletherapy/gamma knife licenses.

Radiological Incidents

April 3, 2006 - A medical physicist was training four students on the emergency procedures for the HDR unit. The students were wearing dosimeters and carried a GM when entering the room. The source was in the "parked" position inside the shield and the unit was in "idle" which disabled the internal GM and the emergency retract button on the unit. The first student began the emergency procedure and turned the hand crank eight times. At this point there were no problems. The second student performed their emergency procedure and simulated turning the hand crank eight times. The third student then performed their emergency procedure and turned the hand crank eight times. Unknown to the student and the medical physicist, the second set of turns on the hand crank caused the source to be pulled through the back end of the shield. At this point, a 10 Ci source was only shielded by the metal case of the HDR unit. Upon exiting the room, one of the students noticed that the Primealert on the wall was flashing. A subsequent survey identified the condition of the source. The room was then locked and the Radiation Safety Office was notified.

As a result badges are were obtained from all personnel for emergency processing. The maximum reading was 40 mrem. Varian personnel, who are the vendors, recovered the source on April 7. A new source was installed the same day and the unit tested and declared fully operational. The Commonwealth was notified of the incident and was present for the recovery. The Commonwealth made a report to the NRC.

Misadministrations

There were no patient misadministrations in FY 05-06

Accomplishments and Major Events

1. The annual National Emission Standards for Hazardous Air Pollutants (NESHAP) report on radioactivity releases was completed. The University met the standard for released radioactivity.

Academic Participation by Radiation Safety Office Staff
2005-2006 Academic Year

1. Lectures, seminars, etc. in UK courses

Fred Rawlings

Radiation Medicine: Radiation Protection,
RM/BIO 740 Mammalian Radiation Biology(1 hour)

Gerald Schlenker

Radiation Science class lecture on Meter Calibration

2. Instructed undergraduate and graduate students as part of EHS safety courses.

Fred Rawlings

Basic and Initial Radiation Safety courses
Staff technical in-service training classes
Ancillary and Police staff in-service safety classes
Irradiator Training
Occupational Health and Safety: Occupational and Environmental Health

PM 601	Radiation Dose Risk	(1 hour)
	Industrial Uses of Radiation	(1 hour)

Gerald Schlenker

Laser Radiation Safety courses (standby for Basic, Initial and other training).
Initial and Refresher Radiation Safety classes for nursing staff
Medical School PhD candidate Radiation Safety Orientation class
Staff technical in-service training classes
Ancillary and Security staff in-service safety classes

Andy Miller

Irradiator safety classes

3. Participation in Outside Activities

Gerald Schlenker and Bill Garner continue to play an active role in the Bluegrass Emergency Response Team.

Key Indicators for Radiation Safety

The numbers and costs below are provided to give an indication of the level of activity within EHS units when conducting their day-to-day business.

Authorized users		176
Authorized laboratories		337
Radionuclide purchases, cost		$853,024
Radionuclide purchases, millicuries		52,085
Radionuclide orders received		1304
Laboratory inspections/surveys		1713
Laboratories	1513	
X-ray machines	160	
Lasers	66	
Sealed source leak tests		265
Patient therapies:		
Brachytherapy		0
Thyroid		104
Radiation safety class participants		1010
Personnel Monitoring		
Film badges, etc. used	9,000	
ALARA reports, Level I		97
Level II		30
Radioactive waste disposal		
Dry solid, long-lived (cu. ft. shipped)		378.0
Dry solid, short-lived, decayed (cu. ft. disposed)		154.0
Liquid (cu. ft. shipped)		53.3
Waste disposal cost		$65,194
Radiation instruments calibrated		186

Surveys

Radiation Safety Office personnel periodically (at least quarterly) inspect the laboratories and facilities of Authorized Users to monitor the lab's radiation safety program. Radiation exposure rates and removable contamination levels are measured and record keeping systems reviewed during the surveys. The frequency of surveys is determined by the type of source, quantity of radioactive materials used, results of previous surveys, and general compliance with State regulations and University policies.

The Radiation Safety Office conducted 1,320 AU facility surveys, in approximately 340 AU facilities. Ninety-two percent of the AUs were found to be in compliance.

The most frequently observed non-compliance item was lack of survey records (7.80%). Such records are required to show that the Authorized User is controlling contamination and radiation exposure in his/her laboratory. The frequency depends on the amount of material used, but area surveys are typically conducted each month.

The second most common item of non-compliance is evidence of eating or drinking in the lab (2.70%).

The third item is radioactive materials not properly secured (0.5%). These items are also identified for priority compliance action.

Contamination was found in very few laboratories (0.3%). This citation has been below 1 percent of the labs for some time.

The most serious issue observed continues to be a lack of performance or documentation of area surveys. Compliance follow-up action continues to bring about improvements.

Table 1

Non-Compliance Issues Observed

Item #	Occurrence	Percent	Violation
01	4	0.5	UK Notice to Employees not posted
07	3	0.4	Emergency procedures not posted
10	2	0.3	ALARA violation (contamination in the lab)
22	58	7.8	Contamination Survey results not available
23	2	0.3	Appropriate survey meter not used or unavailable
26	20	2.7	Evidence of personnel eating and/or drinking in area designated for Radioactive use
35	4	0.5	Radionuclides not secured against unauthorized access or removal
48	648	91.8	No items on noncompliance

Authorizations

To obtain authorization to procure and use radioactive material, a prospective Authorized User must complete an "Application for Authorization to Possess and Use Radioactive Material". The Radiation Safety Officer reviews the application, evaluating the facilities available, the training and experience of the applicant and staff for the proposed use, and the details of the work to be performed. After the review, including any necessary modifications, the application will be forwarded to the appropriate Radiation Safety Subcommittee (medical or campus) with a recommendation for approval or disapproval. The application must be approved by a two-thirds majority vote.

There were 176 Authorized Users with approximately 337 laboratories. Table 2 provides locations for the most common AU facilities.

Table 2

Authorized Users (AU) and Radioactive Material Laboratories*

Location	Number of AUs	Number of Labs
Animal Pathology	**1**	**1**
ASCN	**7**	**12**
ASTeCC	**2**	**2**
Barnhart	**1**	**1**
BBSRB	**16**	**68**
CAER	**1**	**2**
Chemistry/Physics	**4**	**12**
College of Health Science Bldg	**16**	**68**
Combs	**10**	**17**

CTW		**18**	**29**
Funkhouser		**1**	**1**
Garrigus		**4**	**9**
Gill Heart		**1**	**3**
Gluck		**5**	**7**
HSRB		**14**	**28**
KY Tobacco Research		**6**	**8**
Markey Cancer Center		**0**	**0**
MRI		**0**	**0**
Pharmacy		**16**	**26**
Plant Science		**14**	**21**
Research #3		**2**	**3**
Sanders Brown		**9**	**12**
Sloan		**1**	**1**
T.H. Morgan		**2**	**6**
UKMC		**39**	**66**
Wenner Gren		**1**	**1**
Whalen Bldg		**1**	**1**
	Total	**176**	**337**

*This table does not include AU authorized for sealed sources.

Twelve new AUs and 8 authorization amendments were approved. Eight authorizations were terminated (by choice, leaving, etc.). Table 3 provides the number of new users, terminated authorizations, amendments and total users for the campus and Medical Center.

Authorized Users are required to submit 5-year renewal of their authorization upon request by the Radiation Safety Office. Twenty AUs received their 5-year authorization renewal. The five-year renewal program is up-to-date and on schedule.

Table 3

Total and Changes in the Number of Authorizations

	Medical Center	**Campus**
Total Users	**145**	**74**
New Users	**5**	**8**
Terminated	**5**	**3**
Amendments	**6**	**2**
5 Yr Renewals	**10**	**10**

Radiation Safety Training

The Radiation Safety Office provides radiation safety training for all registered radiation workers and principal investigators new to UK. This is done primarily through two regularly scheduled courses. Annual training is also done for ancillary staff, UK police, MC security, Markey nursing staff and others as needed.

The Basic Radiation Safety course is for radiation workers new to UK and especially for those with no previous radiation safety training or experience. This course is given monthly and lasts three (3) hours. Topics include rules and regulations, radiation safety at U.K., fundamentals of radiation safety, laboratory practices, waste management and emergency procedures. A short test is given at each session, with a passing grade of 60 percent. New radiation workers can be approved to start work promptly by taking the On-Site and Initial Training orientation provided on demand by the AU and the Radiation Safety Office. The Basic Course is, however, still required. Upon satisfactory completion, a certificate is awarded. The Basic Course must be completed within 4 month of beginning work.

The Advanced Radiation Safety Course is for faculty and staff new to UK but with previous training and experience. This course is available on line through the Environmental Health & Safety website. Topics cover lab or facility radiation safety management at UK. Quizzes are given, and certificates of completion awarded.

Table 4

Radiation Safety Training Attendance

Title	Number offered	Number of attendees
Basic Radiation Safety	11	107
Advanced Radiation Safety	On-Line	62
UK Police	4	20
Ancillary Staff	4	348
Initial Training (prereq. for Basic)	Daily as needed	147
Nurses	Monthly	289
Laser	On-Line	14
Analytical X-Ray	On-Line	19
Irradiator Training	2	4
Medical Center class participants	6	236
	Total	1246

Dosimetry

Dosimetry (film badges, TLD, pocket dosimeters, Luxel, etc.) for individual who may be exposed to ionizing radiation is provided by the Radiation Safety Office. Any individual potentially exposed to gamma, beta x-rays, or neutrons and could receive an annual dose in excess of 10 percent of the limit must wear dosimetry. The standard monitoring device is a clip-on radiation body or ring badge bearing the individual assignee's name, date of the monitoring period and a unique identification number. The individual may be issued monthly or quarterly badges depending on the potential for exposure. Typically, individuals working in research operations use quarterly badges. Individuals working in Nuclear Medicine, Radiation Medicine, and Radiology typically use monthly badges.

The Radiation Safety Office issued 6746 monthly radiation badges and 992 quarterly badges. In addition, the Office issued 632 ring badges, 50 neutron badges, and 183 double badges. One hundred and eighty-three (183) selected EDE calculations per year were performed. The total cost for film badges was $15,149.23.

Table 5

Dosimetry Issued

Quarterly Badges

Type of dosimetry	Total Issued	Aver. per shipment
Whole Body	992	248
Rings	152	38
Neutron	507	12
Area Monitor	28	7

Monthly Badges

Type of dosimetry	Total Issued	Aver. per shipment
Whole Body	6746	562
Rings	480	40
Double Badges	183	15
EDE Calculations	183	15
New Badges	186	16

The maximum dose for an individual during a particular month can be found in Table 6 for each of the organs monitored, deep, lens of the eye, skin and extremities.

Table 6

Maximum Observed Monthly Radiation Exposures

Organ	Dose (mrem)	Department	Date
Deep	519	Cath Lab	10/05
Lens of the Eye	519	Cath Lab	10/05
Skin (Shallow)	494	Cath Lab	10/05
Extremity	780	Nuclear Medicine	03/06

Table 7

Annual Whole Body Exposure for Selected Departments

Department	# Badged Personnel	Total Exposure (mrem)	Average Exposure (mrem)
Cath Lab	61	13,697	326.11
Nuclear Medicine	12	3174	288.54
Radiation Medicine	73	1841	25.22
Radiology/Techs and Radiology/Residents	162	25,077	154.30

ALARA Reviews

There are two notification levels for the ALARA program. Level I notifications involve a radiation worker receiving greater than 10 percent of the maximum allowable dose (prorated for a quarter exposure period). The recipient is notified in writing when their exposure meets this level's criteria. The notification requests that the worker review their work procedures in order to reduce exposure, if feasible.

Level II notifications involve a radiation worker receiving greater than 30 percent of the maximum allowable dose (prorated for a quarter exposure period). The recipient is notified when their exposure meets this level's criteria and is requested to complete an investigation form as to the probable cause and consideration of actions for reducing the probability of a recurrence.

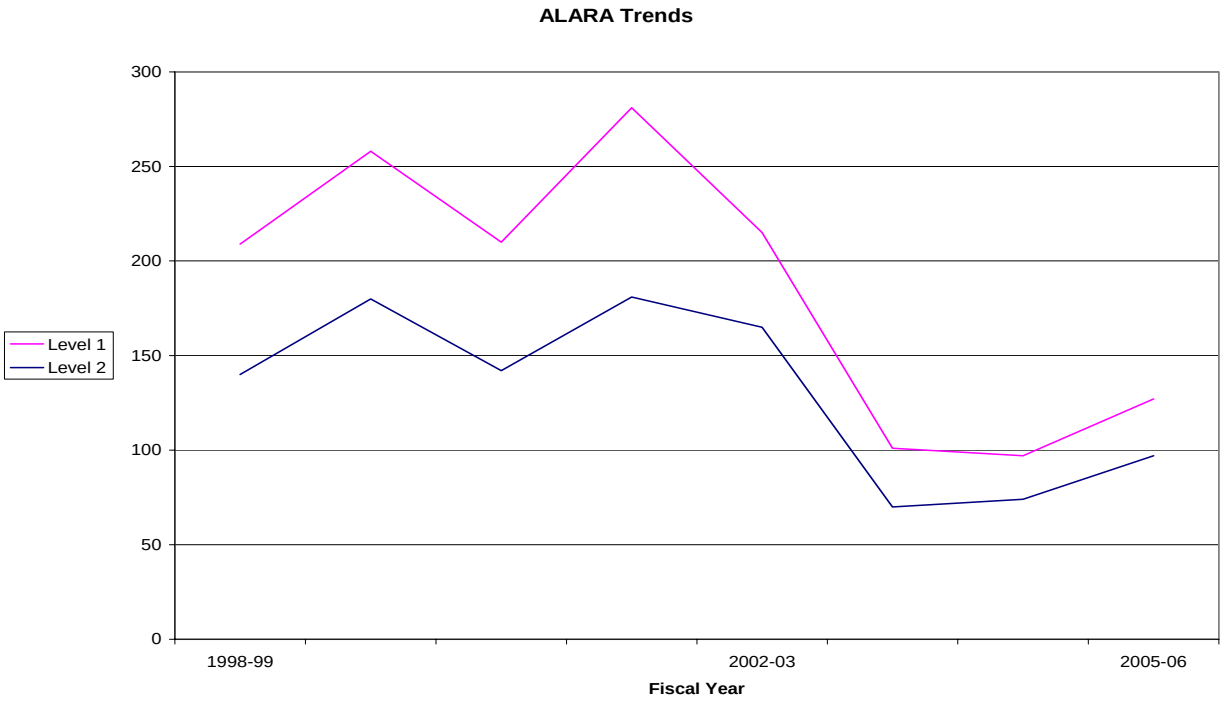
The ALARA notifications in Table 8 for each quarter. A trend graph is included. The number of ALARA Levels I and II notifications increased significantly.

Level I and II reports increased 24 percent and 20 percent, respectively from last fiscal year.

Table 8

ALARA Numbers for Each Quarter

Quarter	Level I	Level II
3rd 05	24	6
4th 05	10	7
1st 06	22	10
2nd 06	32	7
Total for the Year	**74**	**30**



Bioassays

A thyroid scan is required on individuals who use certain quantities of I-125 and I-131 in both bound and volatile form. Thyroid scans or urinalysis is also done if there is skin contamination. Nuclear Medicine performs its own thyroid scans for staff directly involved in I-131 therapy administrations. The Radiation Safety Office and Nuclear Medicine department conducted 104 thyroid scans. All results were less than 0.12 uCi body burdens, indicating no greater than 10 percent of the annual limit of uptake.

Radioactive Material Purchases

All radioactive material must be purchased and received through the Radiation Safety Office, with the exception of radiopharmaceuticals for Nuclear Medicine. The Radiation Safety Office purchased 52,084.46 curies of radioactive material (up 21%) at a total of $853,024.16 (down

17%) for Authorized Users in FY 05-06. The most commonly purchased radioisotopes were Ir-192, I-125, S-35, P-32, Pd-103 and H-3 (Table 9a).

Table 9a

Quantity of Radioactive Material Ordered via the Radiation Safety Office

Isotope	Amount (mCi)	Isotope	Amount (mCi)
Ag-108	***.015***	H-3	***279.771***
Al-26	***2.463***	Hg-203	***.001***
Am-241	***.001***	I-125	***905.695***
Ba-137	***.001***	I-131	***1797.62***
Bi-207	***.001***	Ir-192	***46307.452.100***
Bi-210	***.002***	Mn-54	***.100***
C-14	***49.006***	P-32	***841.917***
Ca-45	***3.176***	P-33	***1.376***
Cd-109	***.001***	Pd-103	***718.093***
Cl-36	***0***	Ra-226	***.001***
Co-57	***5.302***	S-35	***1084.98***
Co-60	***.020***	Th-228	***.001***
Cr-51	***65.918***	Zn-65	***.400***
Cs-137	***1.147***		
Total Cost $ 853,024.16		Total	***52,084.46***

Table 9b

Quantity of Radioactive Material Ordered via Nuclear Medicine

Isotope	Amount (mCi)	Isotope	Amount (mCi)
C-14	***.019***	**In-111**	***281.083***
Co-57	***.003***	**Sm-153**	***182.212***
Cr-51	***5.786***	**Tc-99m**	***161650.097***
Ga-67	***378.94***	**Tl-201**	***69.413***
I-123	***66.144***	**Y-90**	***125.752***
I-131	***26960.843***		

Table 9c indicates that as of June 30, 2006, the University had a total of 113,181.8 mCi of radioactive material on hand (not including sealed sources).

Table 9c

Radioactive Material On-hand as of June 30, 2006

Radionuclide	Activity (mCi)	Radionuclide	Activity (mCi)
Al-26	2.465	Ir-192	12328.669
Am-241	0.009	Mn-54	0.022
C-14	173.472	Na-22	0.066
Cd-109	0.014	Nb-94	0.001
Cm-244	126.313	P-32	28.405
Co-57	21.085	P-33	0.394
Co-60	0.001	Pu-239	0.001
Cr-51	5.300	S-35	126.942
Cs-137	47.198	Sr-90	459.994
Fe-55	0.136	Th-228	0.001
Gd-153	0.001	Tl-204	0.014
H-3	99325.145	U-Nat	24.999
I-125	431.951	Zn-65	0.173
I-131	79.031		
		Total	**113,181.800**

Radioactive Waste

The Radiation Safety Office conducted 802 pickups of radioactive waste. Table 10 lists the radionuclides picked up and the total activity for each radionuclide. The dry solid waste was either shipped out as long-lived radioactive waste or held in storage for at least ten (10) half-lives, surveyed, and disposed of as non-radioactive waste. H-3 and C-14 were the most common long-lived radionuclides, with I-131, P-32, and S-35 the most common short-lived radionuclides. Mixed hazard waste is segregated by half-life, radionuclide and concentration. It is then either decayed until it is only a chemical waste or shipped as a mixed waste (mixed waste is not included in Table 10). Six cubic feet of animal waste was shipped.

Table 10

Total Radioactive Waste Received by Radionuclide

Activity in millicuries

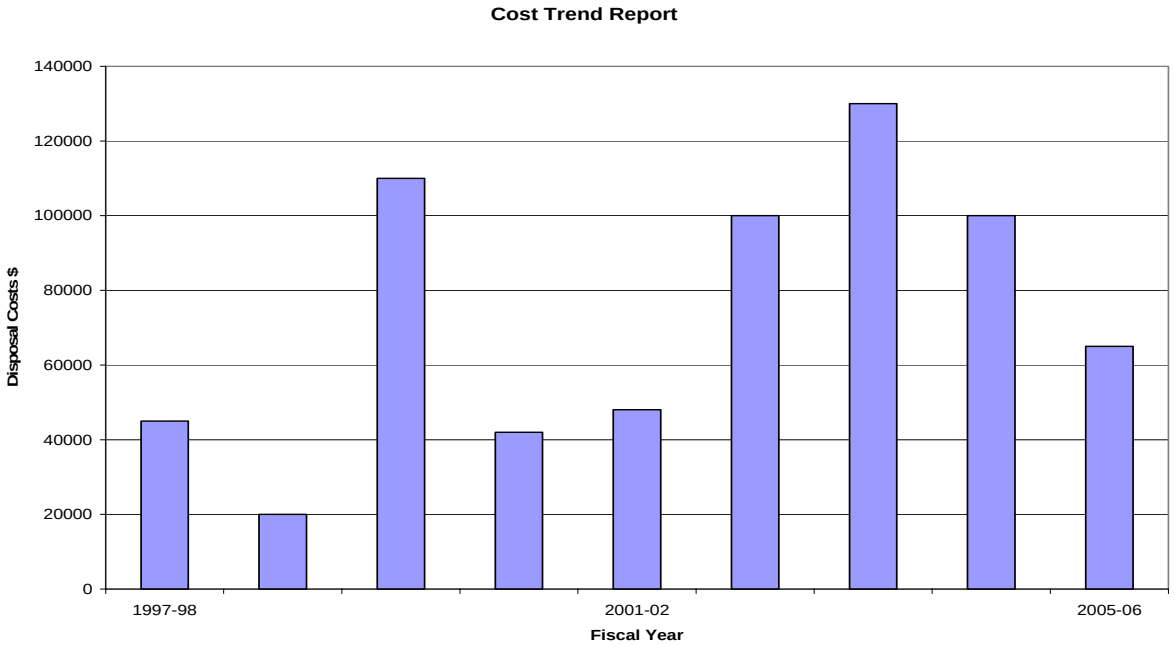
Isotope	Dry Solid Waste	Aqueous
l-26	0.002	
Ba-133	0.004	
Bi-207	0.0001	
Bi-210	0.0002	
C-14	11.421	2.782
Ca-45	0.011	0.06
Cl-36	0.600	
Cm-244	1.000	
Co-57	0.003	
Co-60	0.015	0.006
Cr-51	16.558	
Cs-137	1.002	0.145
H-3	43.868	76.101
I-125	93.165	20.531
I-131	2636.320	
Mn-54	0.100	8.000
P-32	329.044	29.618
P-33	1.690	0.104
Pd-103	2.000	
Ra-226	0.013	
S-35	128.709	255.006
U-238	0.001	
Zn-65	0.110	
Total	**3,265.637 mCi**	**392.352 mCi**

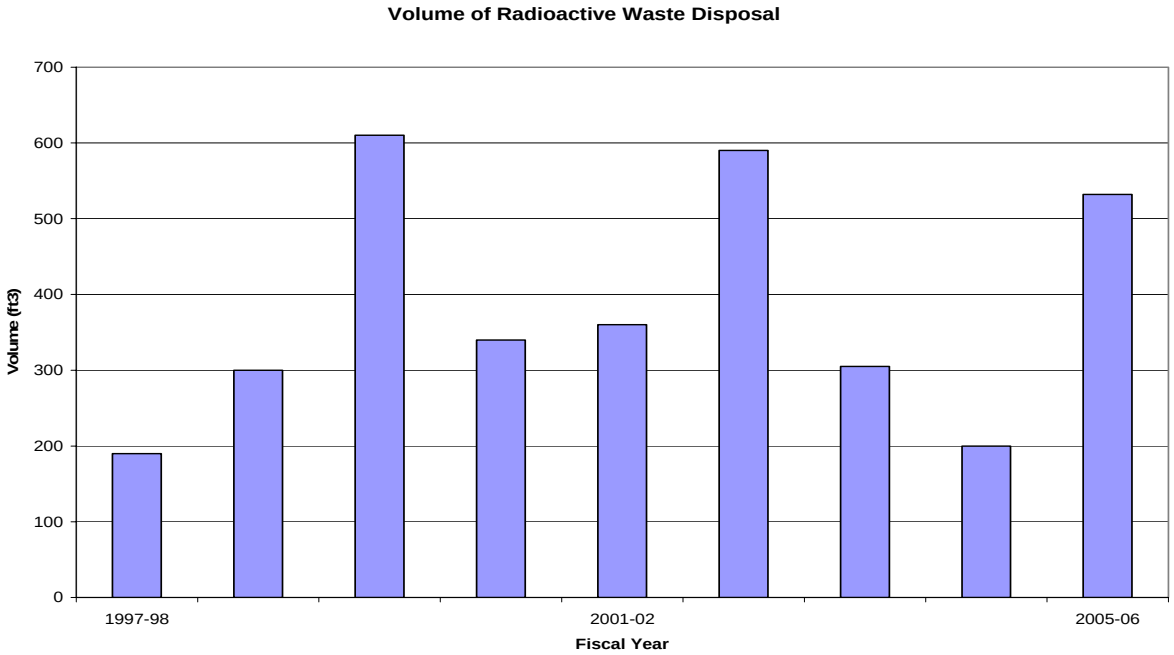
The release of liquid aqueous radioactive waste to the municipal sewerage system was eliminated during FY 02-03. These wastes are now shipped for commercial incineration. This eliminates the possibility of non-aqueous wastes from being mistakenly, and unlawfully, released.

The annual Kentucky radioactive waste report was prepared and filed in Frankfort. The following graphs depict the total volume of waste generated and the associated disposal costs for the past ten years. In general, UK has been able to contain waste costs. However, fees are rising; special waste disposals occur and charges are being added such that the overall cost can be expected to increase.

Cost and Quantity Trend Report

Volume of dry solid radioactive waste, short and long-lived, including animal carcasses, and including sealed sources. Excluding mixed radioactive-hazardous waste and excluding liquids.





Meter Calibrations

Authorized Users working with radioactive material other than H-3, C-14 or S-35 are required to have an appropriate survey meter (commonly a Geiger counter with an end window or pancake type detector) in the laboratory. The Radiation Safety Office calibrates these survey instruments annually. The Authorized User must notify the Radiation Safety Office when he/she purchases a new Geiger counter. One hundred and eighty-six (186) meters were calibrated.

Patient Care Support

The Radiation Safety Office provides radiation safety support for patient's receiving therapeutic radiopharmaceuticals (>33 mCi I-131), Cs-137 implants, Ir-192 implants and seed implants. Upon administration of radiopharmaceuticals or brachytherapy implants, the Radiation Safety Office performs and documents a multi-point radiation survey. This data is used to determine the allowed time hospital staff and visitors are allowed to be adjacent to the patient. The hospital staff and visitors are then instructed on the radiation safety precautions to be followed when in or around the room containing the radioactive patient.

Table 11

Radiation Safety Services to Nuclear Medicine and Radiation Medicine

Brachytherapy Implants	**0**
Thyroid treatments	**104**
Total	**104**

Sealed Source Inventory and Leak Test

The Radiation Safety Office performs all sealed source leak tests. All beta/gamma and neutron sealed sources (greater than 100 microcuries) were tested for leakage at intervals not to exceed six months. All sealed sources (greater than 10 microcuries) designed for the purposes of emitting alpha particles were tested at intervals not to exceed three months. Ni-63 foil sources (greater than 100 microcuries) are tested at intervals not to exceed six months. If a leak test reveals removable contamination greater than 0.005 microcuries, the source is removed from use and decontaminated, repaired or disposed of as radioactive waste. The Radiation Safety Office conducted 265 leak tests (counted each therapy source individually). No activity greater than 0.005 microcuries was observed

Lasers

The Principal Investigator is responsible for safe use of lasers in his/her laboratory and to inform the Radiation Safety Office in the event of an accident. There are currently 20 laser Authorized Users. All Class 3b and higher lasers must be registered with the Radiation Safety Office prior to use. Sixty-eight laser inspections were completed. Consultations and pre-registration guidance were provided. A web based training program is available, allowing users to complete the laser safety training requirements on line. Fourteen laser users completed the online web based training.

Radiation Safety Committee Membership

2005-2006

Abercrombie, Sheryl, Diagnostic Radiology, slaber0@pop.uky.edu, 257-3502
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Hughes, Patricia, Nursing Services, phugh2@email.uky.edu, 323-6154
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Report of the
University Fire Marshal

FIRE MARSHAL
Annual Report
FY 05-06

Accomplishments and Major Events

1. The entire month of September was designated by the United States Congress as Campus Fire Safety Month for all universities and colleges. UK had fire prevention and promotional activities each Wednesday of the month for faculty, staff, and students.

University of Kentucky News

UK to Participate in National Campus Fire Safety Month

The University of Kentucky will hold a series of fire safety demonstrations at four sites across the campus during the month of September, which Congress designated as national Campus Fire Safety Month in legislation passed earlier this year.

UK Emergency Management Director Christy Giles said that each Wednesday throughout the month, campus fire safety officials together with the Lexington Fire Department will be conducting the exercises, which will include opportunities for students, faculty and staff to receive "hands on" training in the proper use of fire extinguishers and other safety devices. In addition to on campus fire safety, Giles said a big emphasis of the activities will be directed to persons who live in nearby off-campus housing.

"Over three-fourths of the fire fatalities in student housing nationally since 2000 have occurred in off-campus housing," said Giles. She cited several common factors in many of these fires:

- Lack of automatic fire sprinklers
- Missing or disabled smoke alarms
- Careless disposal of smoking materials
- Alcohol consumption

In April 2005 alone, six students were killed in four fires at Miami University in Ohio, Southern Adventist University in Tennessee, Penn State University, and at the University of Maryland.

Too often, according to the national director of the Center for Campus Fire Safety Ed Comeau, fire safety education is something that is not strongly emphasized, and this could play a vital role in reducing the number of both on- and off-campus fires.

“By educating students we will not only protect them while they are in college but in the years to come, helping to reduce the almost 4,000 lives lost to fire each year in the United States,” said Comeau.

Each year before the start of the fall semester, UK Fire Marshal Garry Beach, along with Assistant Fire Marshal Greg Williamson, conduct mandatory fire safety training for campus residence hall directors and advisors. In turn, hall directors are required to conduct mandatory fire escape drills for residents. Also, each residence hall on the UK campus is equipped with automatic fire safety sprinklers and smoke detectors.

The first of the four fire safety demonstrations will be conducted from 10:30 a.m. to 1:30 p.m. Wednesday, Sept. 7, with other sessions to follow during the same three-hour time period on Sept. 14, 21, and 28. In addition to proper use of fire extinguishers, the automatic sprinkler buggy and other apparatus from campus and fire department authorities will be demonstrated.

Here is the schedule, with the various locations:
Sept. 7 - Commons Plaza - 10:30 a.m. - 1:30 p.m.
Sept. 14 - Patterson Office Tower Plaza - 10:30 a.m. - 1:30 p.m.
Sept. 21 - North Campus Dorms Courtyard - 10:30 a.m. - 1:30 p.m.
Sept. 28 - Medical Center Plaza - 10:30 a.m. - 1:30 p.m.

Minger Sprinkler Training Unit

Smoke is extremely hazardous

Smoke can fill an entire facility: visibility is limited; hinders egress from the involved area.

State Fire Marshal's office supported September activities

President Todd receiving his September Fire Prevention promotion T-shirt

2. In addition to the September National Fire Month planned activities, a fire safety "tip of the day" email notice was issued to the University community.

3. Obtained computer software to enable the development of evacuation routes for buildings. This will be an ongoing program.

4. In conjunction with the UK Director of Emergency Management, developed an "Emergency Assistance Card" to be provided to physically impaired individuals. Should an emergency occur, the card will be given to someone as they evacuate the building. This person will then give the card to an emergency personnel responding to the incident. Rescue of the physically impaired person will be given priority. With initial emphasis on resident halls, training was provided to the Hall Directors and the staff of Residence Life.

5. Implemented program to identify fire hydrants and fire lanes per Metro Fire Department's policies/guidelines. Also incorporated these changes into CPMD's Standards and Guidelines.

6. Reviewed, approved and tested tunnel security system for exits in Smith, Baldwin, and Ingles Residence Halls

7. Established and filled Code Specialist position to enable review construction/renovation plans.

8. Petitioned and obtained authority from the Office of State Housing, Building, and Inspections extending UK project jurisdiction to $400,000.

Special Projects

1. Conducted training tours for the Lexington Fire Department of all campus tunnels.

2. Assisted Biological Safety Officer in tours of RED ROOMS with Lexington Fire Department.

3. Attended and participated in UK Football Operations Training in preparation for the football games.

4. Tested and approved 15 automatic wet chemical fire suppression systems for 4 new residential buildings.

5. Tested emergency lighting at Commonwealth Stadium for upcoming football season.

6. Revised Recycling Policy.

7. In conjunction with Simplex/Grinnell, tested 5 atrium smoke evacuation systems.

8. Conducted (per request of fire department) special training tours with Lexington Fire Department of Chemistry/Physics chemical storage rooms.

9. Evaluated pyrotechnics display for Midnight Madness at Rupp Arena.

10. Updated Evacuation, Microwave, and Space Heater Policies

11. Reviewed and approved plan to correct deficiencies in the Chemistry Physics CO_2 suppression system in the flammable liquid storage room.

12. Provided 3 comments to Chief Vick on fire prevention to be added to a safety flier for football games.

13. Revised flame retardant requirements for Furnishings and Decorations.

14. Held 2 classes and trained 49 Medical Center Custodial Staff in “smoke detector awareness” training. Objective was to reduce nuisance fire alarms created with dust from vacuum cleaners.

15. Reviewed/approved construction fence for Huguelet Avenue extension.

16. Reviewed/approved construction fence for Patient Care Facility.

17. Trained 4-H staff in fire prevention practices and proper use of fire extinguishers.

18. Tested all Greek Chapters for fire alarm audibility. Upgrades in five chapter houses will be completed next Fiscal Year.

19. Reviewed and approved security requirements for Smith Hall tunnel.

20. Comprised emergency plans for Hagan Baseball Stadium in support of NCAA Baseball Tournament.

21. Labeled all fire department connections as to the buildings they serve.

Connection with Signage

Training

Fire Extinguishers (FE)
Fire Prevention (FP)

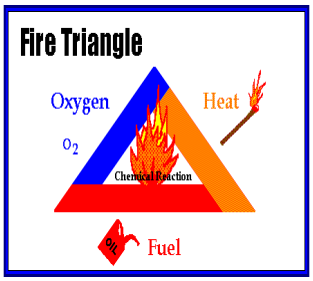
Residence Halls

- Hall Directors/Assistant Hall Directors; August 2nd: 40 people (FP)
- RA's: August 12th; 120 people; included policies and fire regulations, inspection of rooms, and fire drill with smoke (FE/FP)
- Kirwan 4: 16 people (FP)
- Kirwan 3: 19 people (FP)
- Baldwin: 22 people (FP)
- Jewell Hall: 20 people (FP)
- Greg Page: 16 people (FE)
- Blanding 4: 22 people (FP)
- Blanding 2: 18 people (FP)
- Boyd Hall: 4 people (FP)
- Blanding 1: 45 people (FP)
- RA's (FP/FE): new for Spring Semester 12

Hall Directors and Resident Advisors Training

Greek Chapters

- Sorority Orientation---1200 people (FP)
- AGR fraternity: 23 people (FP)
- SAE fraternity: 45 people (FP)
- SAE fraternity: 38 people (FP)—non-residents
- Lambda Chi: 37 people (FP)
- Greek Chapter house directors and assistants 28 people (FP)
- Phi Delta Theta—37 people (FP)
- Sigma Chi 43 People (FP)
- Phi Kappa Tau: 36 People (FE/FP)
- ATO: 32 People (FE/FP)
- Sigma Phi Epsilon: 12 People (FE/FP)
- Sigma Nu: 38 people (FE/FP)
- Sigma Alpha Epsilon: 33 people (FE/FP)
- Delta Zeta (FP): 21 people
- Phi Kappa Psi (FP): 18 people



BBSRB

- July 18th—15 people (FP)
- Fire Response Officers (BEAP): 28 people

Human Resources

- August 13th: 3 people(FE)

HSRB BSL3

- 3 people (FE)

Chemistry/Physics

- (Bill Fuqua)---24 people (FE)
- Chemistry Grad students: 26 people (FE)

Medical Center Lab Staff

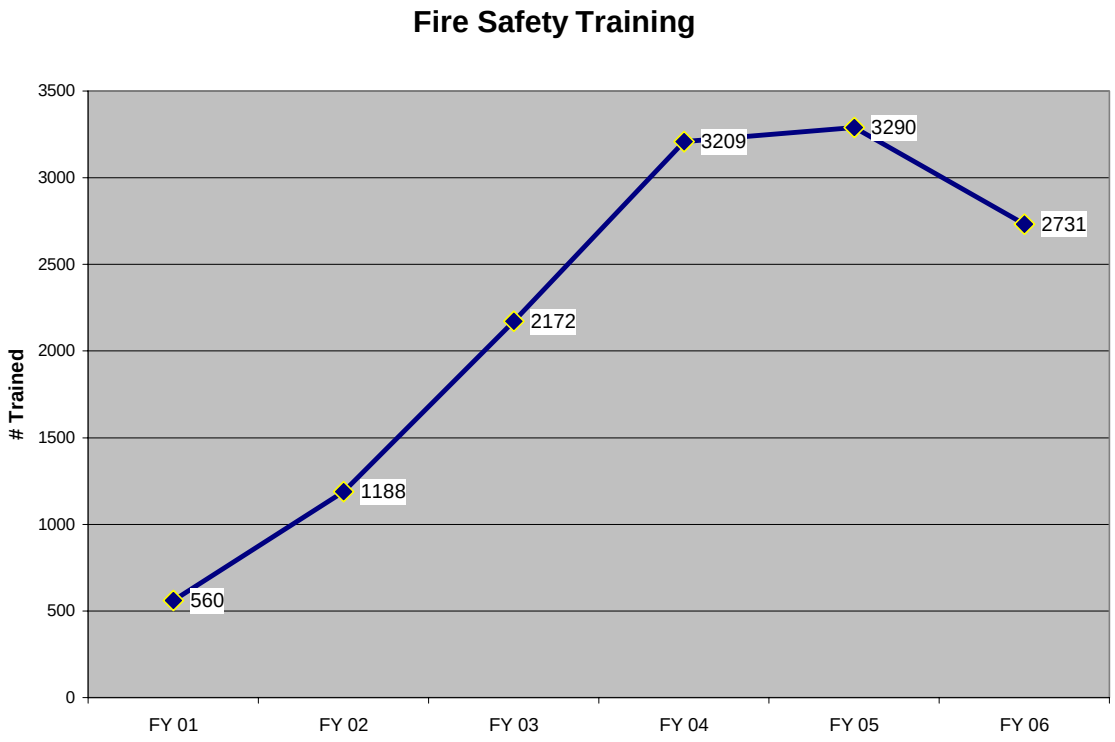
- October 19th: 28 people (FE/FP) (Sue Overman)
- November 8th: 39 People (FE)
- 50 People (FE)
- November 9th: 20 People (FE)
- November 15th: 18 People (FE)
- November 16th: 29 People (FE)
- November 17th: 13 People (FE)
- November 18th: 18 People (FE)
- November 21st: 19 People (FE)

Chemical Engineering

- January 11th: 8 people (FE)

W.T. Young Library Staff

- BEAP: 8 people



Inspection Activity

- Greek Chapters
- Residence Halls
- Homecoming Parade Floats
- Hospital (in conjunction with State Inspector)
- Haunted Houses
- Greek Chapters (houses); tested each fire alarm system for audibility levels. Fire alarm upgrades will be completed in 5 houses in the 06-07 fiscal year,
- Atrium smoke removal systems (Medical Center and Campus—total of 9)
- Commonwealth Stadium
- Rupp Arena
- State Fire Marshal Inspection (entire campus)

Fire Investigations

- Food Storage; August 18th; electrical motor in mechanical room. No physical damage.

- Boone Tennis Center; August 5th

Boone Tennis Center (lights over court): minor smoke; heat from bulb eventually weakened insulation around conductor causing the lighting unit to fall.

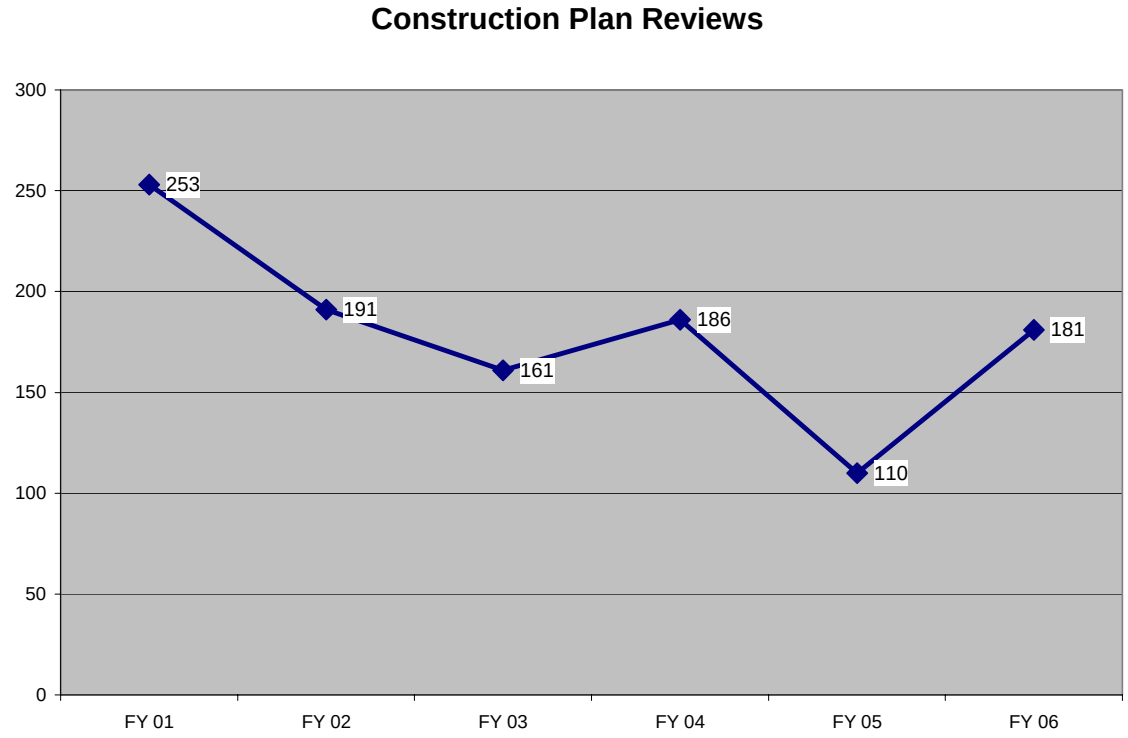
Professional Development

- CAAK Conference—Greg
- Enhanced Incident Management Unified Command System—Texas A&M University: Greg and Garry
- Rupp Arena table top mock disaster drill: Greg and Garry

Key Indicators and Routine Functions

I. ***Construction Plan Review/Approval***

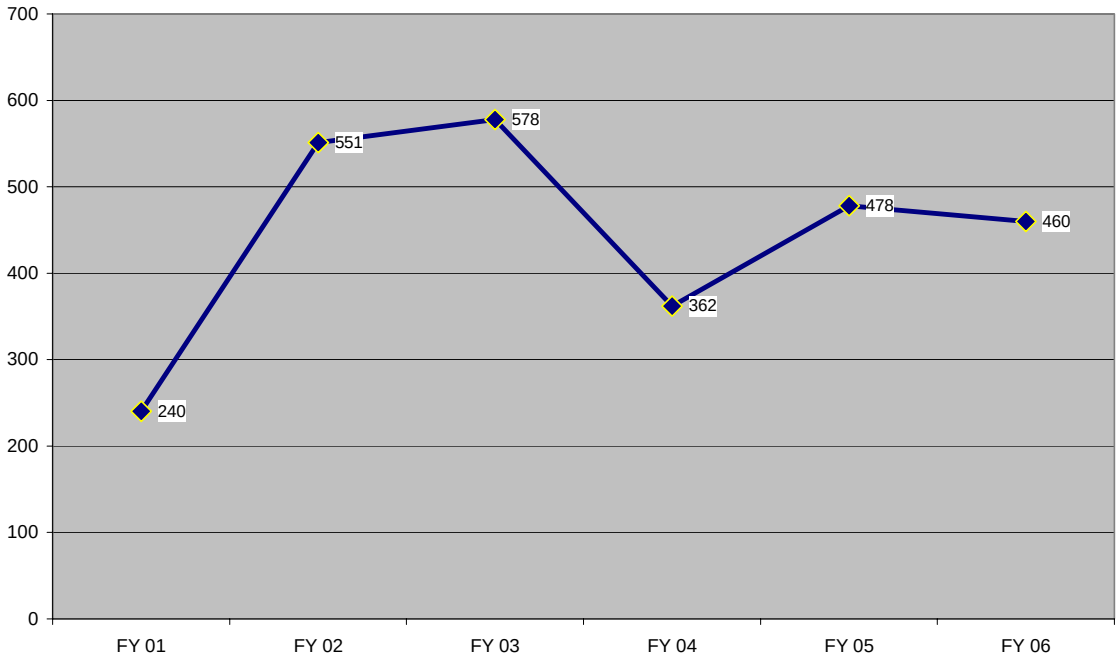
Capital Projects	**MC/Campus PPD Projects**
Reviewed - 25	Reviewed - 156
Inspected with State - 47	Inspected - 154
	Finalized - 32



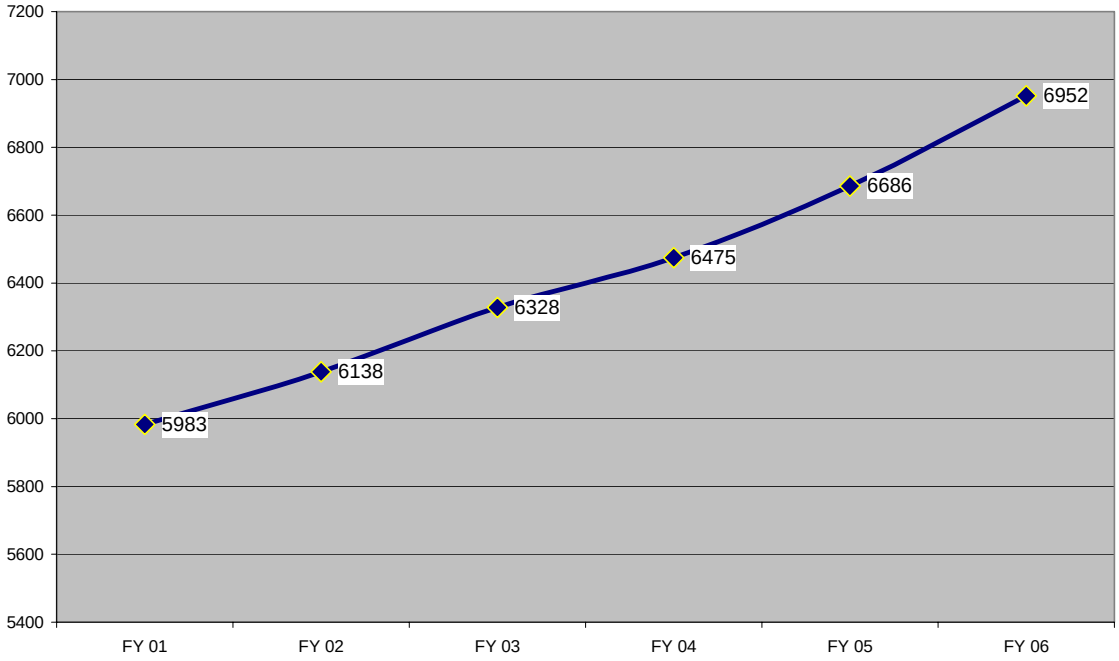
II. *Fire Alarms*

- Total Alarms: 460
- True Alarms: 26 (incidents where a suppressant was required to be applied)
- Nuisance Alarms: 411: (incidents where there is no fire danger present but a detection device activated: this can be from mechanical failure, system malfunction, improper location of detector, or situations created by the occupant)
- Malicious (False) Alarms: 23 (incidents created by an individual intentionally)
- Threat of Fire (Minger Act): 0

Fire Alarm Incidents



Fire Extinguisher Inspections



Looking Ahead

The creation of the new position "Code Specialist" is allowing the Assistant Fire Marshal to concentrate his activities on:

1) investigation of fire alarms
2) in-depth life safety training: mock fire disasters/fire drills are being conducted for the residence halls, and;
3) fire prevention inspections that will be in addition to the annual State Fire Marshal inspections

The Code Specialist's primary function is plan review, rough-in inspections (50 percent project completion), and a final acceptance inspection of each project. In addition, prior to the initial plan review, this position will go into the field with the project manager to discuss potential problems created by the project. These activities will save time and expense for the total project. A secondary function of the position is to conduct life safety audits on exit corridors and stairwells.

Report of the
Committee on Safety and Environmental Health

EHS Certificates of Appreciation

In recognition of outstanding contributions to safety at the University of Kentucky, the Committee on Safety and Environmental Health has awarded the following certificates of appreciation.

2006	Mike Kidwell	Physical Plant Division
	Mary Maley	Senior VP for Research & Infrastructure
	Christopher Buford	Medical Center Physical Plant Division
	Charlie Laue	Physical Plant Division
2005	Ann Thomas	College of Medicine – Dean's Office
	Letitia Hollingsworth-Gray	Campus Recreation/Athletics
	Sabire Ozcan	Molecular & Cellular Biology
	Changguo Chen	General Surgery
2004	Debra Sipe	Agriculture Regulatory Services
	Pradeep Kachroo	Plant Pathology
	Robert Yokel	Pharmacy
	Susan Kraner	Pharmacology
	Charles Peyton	Auxiliary Services - Housing
2003	Teri Strickland	College of Pharmacy
	Cabot Jahniger	State Fire Marshal's Office
	Linus Walton	College of Agriculture
	Ben Crutcher	Auxiliary & Campus Services
	Jason Pridemore	Student Resident Advisor
	David Kaiser	Physical Plant Division
	Orlando Chambers	Tobacco Research & Development Center
2002	Lyle Morgan	Auxiliary Services – Housing
	Joe Crouch	Capital Project Management
	Homer Walter	Physical Plant Division
	Jerry Tackett	Robotics and Manufacturing Systems
	Michael Jay	College of Pharmacy
	Pamela Jacobs	Clinical Laboratories
	Don Stone	Parking and Transportation
	Debra Ross	Auxiliary Services – Apartment Housing
	Kathy Rose	Campus Recreation
	Maelor Davies	Tobacco Health Research Institute
	Eva Kaplan	Animal Sciences
2001	Gene Baber	Physics & Astronomy
	IACUC Committee	Mike Bardo, Chair
	John Anthony	Chemistry
	Mary Vickers	Livestock Disease and Diagnostic Center

	Jana Angel	Rehabilitation Services
	David Waldridge	Medical Center Physical Plant Division
	Gary Ginn	Anatomy & Neurobiology
	John Gurley	Cardiology
	Jeanne Bouvier	Nursing
	Ali Meigooni	Radiation Medicine
	Don Hill	Physical Plant Division
	Richard Riedl	Capital Project Management
2000	Bob Brashear	Ag Management Operations
	Ted Jenkins	Chemistry
	Steve Evans	Residence Life
	Tony Ralph	Residence Life
	Marcia Shrout	Residence Life
	Stephen Stauffer	Residence Life
	Melanie Tyner-Wilson	Residence Life
	Loretta Hill	Custodial Services
	James Bryan	Surplus Property
	Brian Butler	Pharmacy
	Norman Goodman	Pathology
	Joseph Mallek	Medical Center Physical Plant Division
	Janet Rodgers	Lab Animal Resources
	Oney Vanlandingham	Center for Applied Energy Resources
1999	Donald Thornton	Parking and Transportation
1998	Mary Ferlan	Wellness
	John Summersett	Physical Plant Division
	Ralph Christensen	Allied Health, Clinical Sciences
	Creighton Trahan	Office of the University Veterinarian
	Kenneth Dickey	Laboratory Animal Resources
	Larry Iten	Laboratory Animal Resources
	Susan Overman	Serology and Virology
	Tomi Ross	Hospital Safety Office
	Carl Nathe	Public Relations
1996	Herbert Strobel	Animal Sciences
	Thomas Vanaman	Biochemistry
	Robert Toreki	Chemistry
	Claude Cornelison	Auxiliary Services
	Greg Shiddell	Auxiliary Services
	Joseph Mallek	Medical Center Physical Plant Division
	Relon Hampton	Whitesburg Community College
	Jerry Hensley	Whitesburg Community College
	Mike Polashock	Paducah Community College
	Rae Ann Egner	Paducah Community College
	Maintenance Department	Paducah Community College
	David Campbell	Henderson Community College
	Judith Chabot	Ashland Community College

Minutes of the
Committee on Safety and Environmental Health

Meeting Minutes
Committee on Safety and Environmental Health
September 28, 2005
102 Mining and Minerals Resources Building

Members Present:
Herbert Strobel ('07) – *Chair*
John Anthony ('07)
Ed McClure ('08)
Nicholas McLetchie ('06)
Susan Pollack ('07)
Richard Riedl ('07)
J.W. Yates ('06)
Bart Miller ('08)
Gus Miller ('08)
Warren Denny *(Ex-Officio)*
Patty Bender *(Ex-Officio)*
Travis Manley *(Ex-Officio)*
Don Thornton *(Ex-Officio)*
Ada Sue Selwitz (*Ex-Officio*)

Guests:
Brenda Stamper
(for Ben Crutcher '08)
David Hibbard
Lee Poore
Woody Bottom
Andy Miller
Jason Burns
Garry Beach
Christy Giles
Marcia Finucane
Megan Cormney

Absent: Thomas Kluemper ('08), Larry Piercy ('06), Rodney Stiles ('07), Tomi Ross (Ex-Officio)

I. Welcome

Chair Herb Strobel welcomed the members and guests, and asked all present to introduce themselves to the group.

II. Approval of Minutes

The minutes from the March 23, 2005, meeting were approved.

III. Emergency Management Presentation

Christy Giles, Director of Emergency Management presented a Power Point presentation and provided handouts to the committee. Director Giles stated her goal was to give the committee an overview of what duties her office performed for the campus community. The office of Emergency Management was established in 2004 and since then has been working on many projects.

One achievement expressed graphically, showed how specific departments within the University performed particular functions in the case of an emergency. Director Giles informed the committee that the department was in the process of compiling a University Wide Hazard Mitigation Plan. The goal of the Mitigation Plan will be to bring individual departments together in the case of a campus-wide emergency. In the future, each building on campus will receive an emergency plan tailored to the specific design of that building. One of the goals of creating building-specific plans is to motivate the departments around campus to be more involved in their own safety.

In the near future, there will be annual emergency drills which will require the participation of the entire University. Director Giles explained the "4 Phases to Emergency Management Planning" as outlined in her presentation. The goal of her department is to have the four phases; mitigation, preparedness, response and recovery all work together to achieve business continuity throughout the University.

The issue was raised as to whether the university owned off-campus buildings, or whether those buildings leased by the University would receive emergency plans as well. Director Giles stated that they did not have plans for off-campus buildings at the moment. Her office will eventually have working plans in place, developed by collaborating with the various landlords. The University is also in the process of renovating a house on campus which will be an Emergency Operations Center. This house will serve as a central location where administrators and local officials could gather to make crucial decisions in the case of an emergency.

There was also discussion about the University's role in aiding the victims of Hurricane Katrina. Director Giles stated her office had not offered or recommended any buildings on campus to be used for housing victims. She agreed with the committee there had been some miscommunication regarding use of University facilities, but at the current time there are no buildings on campus which are approved to be used as shelters. In the case of Hurricane Katrina, the city of Lexington had ample resources to accommodate the evacuees and did not need to call upon the University for assistance.

Chair Strobel thanked Director Giles for attending the meeting and for her presentation.

IV. State of the Environment FY 04-05 Annual Report

David Hibbard, Director of the Environmental Health and Safety Division (EH&S) presented an overview of the State of the Environment FY 04-05 Annual Report. David Hibbard began by informing the committee of the recent staffing changes which had taken place within the division. The Director gave an overview of some of the many accomplishments achieved by the division in Fiscal Year 2004-2005.

The division currently offers eleven training courses online, including three new courses. The number of people trained had increased 17 percent since last Fiscal Year. Since 1994, the division has trained a total of over 55,000. The statistics indicate people prefer taking the classes online versus in the classroom. Laboratory Safety training numbers declined possibly due to fewer classes that were offered in the past year.

Consultants were brought in to evaluate chemical fume hood safety in the College of Engineering. Only eight out of ninety-three hoods had problems. The affected hoods were immediately brought back into compliance.

There had also been improvements in waste minimization. New procedures were put in place which allows all of the chemical waste to be bulked and shipped out at one time. This, along with added storage space in Environmental Management, will add up to an annual savings of $15,000.

The division was also able to aid the hospital in reducing its proposed cost of the disposal of waste which is not medically regulated. Previously, anything deemed potential biohazardous waste, including medically regulated waste (i.e., needles, blood, human tissues), were disposed of through an outside vendor and ultimately incinerated. With the implementation of a rigorous

triage of waste within the hospital and the installation of an industrial autoclaved on-site, potentially biohazardous waste is now separated from medically regulated waste, decontaminated on-site, compacted, and put into the general waste stream, destined for the local municipal landfill. EH&S was able to reach an agreement with the Lexington Fayette Urban County Government (LFUCG) and its contracted waste hauler to accept this decontaminated waste with the general waste and not require a separate waste stream and tracking system. This potentially will save the hospital at least $45,000 a year.

A teletherapy unit formerly used in the Radiation Medicine Department was removed and shipped to another licensee for reuse. A GammaCell irradiator unit formerly used in Radiation Medicine was returned to the original vendor for disposal.

There was also an effort to bring the LFUCG – Division of Fire and Emergency Services personnel onto the campus. The goal was to familiarize the emergency responders with the facilities, so when the responders arrive at the campus they are more prepared to effectively deal with the situation. Fire drills were also conducted in every residence hall. Evacuation plans for every building on campus were also re-evaluated in the past year.

Increases in injury/illness incidents, workers compensation claims and associated payments were observed. Bart Miller commented that recent laws regarding workers compensation claims had changed. Attorneys can charge a larger fee, making it worth their time to pursue more claims than in the past. In the past year lost work days have gone down for the University, and restricted work days went up about 50 percent. It was explained there is a program currently in place where workers who are restricted in their abilities can be assigned light duty jobs at the University. This program in turn reduces the amount of money paid to workers compensation and temporary employees.

After giving a brief overview of other various accomplishments in the departments of: Biosafety, Fire Marshal, Occupational Health and Safety, Radiation Safety and Environmental Management, David Hibbard asked for a motion from the committee to approve the State of Environment FY 04-05 Annual Report.

The question was raised as to why there was a decrease in laboratory safety numbers from the previous year. David Hibbard and Lee Poore informed the committee they maintain a list of individuals on campus who work with chemical in a laboratory environment. This list is continually updated as new people come to the University. Their goal is to target those specific individuals for training, and also to offer more classroom training in the future. One of the reasons for decreased numbers was due to a reduction in classroom training opportunities being offered. They are working with Human Resources to target people particularly in the Chemistry, Engineering, Pharmacy and Agricultural sciences for training.

The motion was then seconded and the report was unanimously approved.

V. Old Business

a. Lab Safety Compliance/Enforcement Initiative

The committee addressed the on-going problem of PIs not correcting laboratory violations. Discussion centered on that fact there is currently no incentive for the corrections to be made. David Hibbard informed the committee he is working to

establish a dialog with the Vice President for Research Wendy Baldwin and the Provost's Office to implement consequences when violations are not corrected. The suggestion was made by the committee to make the Deans of the departments who have laboratory violations to pay the fines which could be imposed by the EPA.

b. 15-Passenger Van Training

The discussion began with reference to a deadly incident involving a 15 passenger van just two days prior at another university. David Hibbard informed the committee that the current University fleet of 15-passenger vans is approaching the end of its use. Jason Burns of Occupational Health and Safety had been evaluating alternatives to this type of transportation, as well as determining what the University's benchmarks are using.

The consensus among the committee was that the 15-passenger vans should be a vehicle no longer utilized by the University. Currently, there is training offered online. Occupational Health and Safety is looking to enhance the existing online training. The College of Agriculture is the only college which requires employees to take the training before they use the vans. It was also discussed that many times the vans are checked out to employees who have not had the proper training. Another issue is when employees are denied access to use vans; they can simply go rent a van from a business such as Enterprise.

The suggestion was put forth that topics such as personal liability should be presented and discussed in the training. It was also put forth that there should be a policy by which employees are not allowed to rent vehicles outside of the University's motor pool. The point was made that when situations arise where people who are handicapped need to use a van, the University is unable to accommodate those individuals. In turn some people who have special needs may be forced to rent vehicles outside the University.

A solution was suggested that when the University buys new vans, the vans should be able to accommodate all types of handicapped individuals or special situations. The discussion ended with a request at the next meeting for the committee to be updated on further developments.

IV. <u>New Business</u>

David Hibbard expressed his desire for the committee to affect some positive change, specifically by the method of policy review. He suggested the committee review policies that come out of his division, and for the committee to give feedback or approval of those policies. The Director believed the input and eventual approval by a committee of peers will give the policies more credibility on campus. It would also increase the visibility of the committee along with the committee gaining a more extensive knowledge of those policies.

The suggestion was made that when building contractors sign contracts with the University there should be a clause in which they are required to maintain a safe environment for the students and employees they are working among. It was put forth that theoretically this was already being done, but there are still times in which a person from the University will have to confront the workers and inform them they are posing a danger. There was some discussion about current and past projects around the campus. It was concluded this was a topic which needs to be discussed in the future.

Patty Bender then took a moment to recognize the University Fire Marshall (Garry Beach) and his staff for all of the hard work they put into making the past month (National Campus Fire Safety Awareness Month) a success. The Fire Marshall informed the committee that the University will be featured in the National Fire Safety Bulletin for their work in promoting fire safety on campus.

VII. Next Meeting Date

The next meeting date was tentatively set for November 14, 2005.

VIII. Adjourn

The meeting adjourned at 3:35pm.

Meeting Minutes
Committee on Safety and Environmental Health
November 15, 2005
102 Mining and Minerals Resources Building

Members Present:
Herbert Strobel ('07) – *Chair*
John Anthony ('07)
Ben Crutcher ('08)
Thomas Kluemper ('08)
Nicholas McLetchie ('08)
Rodney Stiles ('07)
J.W. Yates ('06)
Bart Miller ('08)
Gus Miller ('08)
Don Thornton (*Ex-Officio*)
Ed Mclure ('08)

Guests:
Naga Perisetti
(For Susan Pollack '07)
Larry Iten
(For Ada Sue Selwitz, *Ex-Officio*)
Marica Finucane
Andy Miller
Megan Cormney
Lee Poore
Jason Burns
Woody Bottom
David Hibbard
Garry Beach

Absent: Larry Piercy ('06), Richard Riedl ('07), Patty Bender (*Ex-Officio*), Warren Denny (*Ex-Officio*), Travis Manley (*Ex-Officio*), Tomi Ross (*Ex-Officio*).

I. Approval of Minutes

The minutes from the September 28, 2005, meeting were approved.

II. Policy Reviews

Four existing policies (Evacuation, Microwave, Stove and Space Heater) were presented for comment and endorsement. These policies had previously been developed and implemented by the University Fire Marshal. The Minors in Research Laboratories or Animal Facilities Policy was a new policy that was to be implemented.

Evacuation Policy (Mandatory) Fire Alarms

The University Fire Marshal (Garry Beach) discussed the purpose of the policy. It had been reported to him that some faculty would not allow students to leave the classroom when the fire alarm sounded. Beach stated that there is now a concurrent policy with the state and local fire departments requiring all people to evacuate a building when the fire alarm is sounded. David Hibbard, Director of Environmental Health & Safety (EH&S) reported there was an incident when a fire alarm sounded in the Fine Arts Building. A person refused to evacuate because they were on hold on the phone. Hibbard stressed the importance of awareness of the evacuation policy and the need for endorsement and input from the committee.

The committee raised the question as to if there were any state laws that support mandatory evacuation. Beach stated there were regulations that support evacuation. The question was raised as to what is the penalty for not evacuating. Beach explained that the case would have to go through administrative channels. Hibbard suggested that the person on the phone should have been forcibly removed, which then raised the question as to what are the consequences of not evacuating. Beach deferred to Bart Miller of Human Resources. He stated that per HR Policy 12, punishment can go all the way up to termination if an employee does not comply with University regulations.

The committee asked why are people not leaving when an alarm sounds. Beach stated that many interpret the alarm as not a real emergency and a waste of their time. Lack of training and enforcement by management were two possible contributing factors.
Management needed to relay to staff the importance of following this policy, and employees need to be informed of the policy in their initial training at the University.

Committee member Ed McClure asked if the Deans and Directors have any authority in the matter of evacuation. Beach responded that the responsibility resides with the person who prohibits others from evacuating and/or does not pers0nnally evacuate. Hibbard added that the responsibility also resides with the affected Deans and Directors per UK Administrative Regulations. No committee member could recall this policy being discussed in a faculty or manager meeting.

The committee suggested that training for this issue should start at the upper levels of management. Chair Strobel stated that the policy should also be communicated to the campus at the beginning of the academic year. Beach responded that he would pursue this for the fall as well as the spring semester. The question was raised as to if reports were completed when alarms are activated. Beach stated that a report is filed consisting of the reason for the alarm.

A committee member discussed an incident in which an alarm was activated. It was 20-30 minutes before the fire department arrived. *Simplex*, the company contracted by the University to dispatch alarms, reported that the problem was with the alarm system. *Simplex* claimed that they did not know exactly what went wrong, but that the delay would not happen again. To date, the cause of the problem has not been determined. There has not been a reoccurrence.

The consensus of the committee was for Beach to amend the current policy to specify consequences for non-compliance.

Microwave Policy

Beach explained that the Microwave Policy was established due to the large amount of "false" or "nuisance" fire alarms being activated. The cause has typically been from burned popcorn in a microwave. Beach stated the policy had paid dividends and that "nuisance" alarms had been reduced. Beach explained that the policy was developed to provide guidelines to microwave users. If the user does not follow the guidelines, they lose the right to have a microwave.

For clarification, it was suggested that regulations on the size of microwaves be added to the policy. Additionally, the policy should be amended to clarify that a student is in violation when they place a microwave within a room with a smoke detector. Hibbard also suggested the policy be more definitive on the type of outlets and extension cords that are allowed for use with microwave ovens.

Stove (Cooking) Policy

The committee began by asking Beach why exceptions would be made to this policy. Beach said that he could not remember ever granting an exception to this policy in a non-sprinkled building. He further stated that from his experience, the policy was effective. The motion to endorse the policy was made and seconded. The policy was unanimously endorsed.

Space Heater Policy

Beach informed the committee that space heaters are allowed anywhere on campus except the Hospital. The Fire Marshal's Office would not approve the use of kerosene heaters. He also agreed with the committee that a statement prohibiting kerosene heaters should be added to the policy.

Ed McClure stated that he has frequently observed heaters left on overnight. In his opinion, space heaters should not be allowed at all. Chair Strobel commented that if anyone observed unattended heaters being repeatedly left on, it should be reported to the Fire Marshal's Office. Beach agreed with McClure that space heaters should be prohibited. However, there are instances when space heaters are needed. There are various buildings on campus which get extremely cold due to inadequate heating systems.

Beach was asked if there had ever been any fires directly related to heater use. Beach could not recall any. Lee Poore commented that she had found heaters in laboratories. Beach has not approved of those applications, but stated that heaters in the office areas of laboratories were acceptable. A motion was made and seconded to endorse the policy with the additional clarification made that kerosene heaters were prohibited. The policy was unanimously endorsed.

Minors in Research Laboratories or Animal Facilities Policy

Minors will frequently work within UK research laboratories and/or animal facilities where potential hazards exist. Currently, minimal information, training and oversight are provided to these minors. This policy was developed to ensure the appropriate safety information and training is provided to minors, as well as to prohibit their exposure to specific hazardous environments. The policy had been previously approved by the Chemical Safety Committee, Institutional Biosafety Committee, and Radiation Safety Committee.

Chair Strobel stated that there were some concerns within the College of Agriculture related to the vague language in the policy regarding agricultural research. Marcia Finucane (Biosafety Officer) suggested there could be an exemption in the policy for 4-H groups, as long as there was documentation of their enrollment and training.

Chair Strobel recommended more discussion on this policy and that it needed further review by those primarily affected. Finucane requested to have the policy approved prior to the upcoming spring semester. She explained that there is a University sponsored program with Dunbar High School occurring in the spring.

Finucane stated that this policy was patterned after policies from the University's benchmarks. Chair Strobel suggested that Finucane and Poore collaborate with the College of Agriculture and try to have something finalized by January 2006. Finucane emphasized the need for this policy to be implemented before January. She suggested that the policy be posted online and so the committee could vote on it electronically. Hibbard acknowledged that online voting was possible and a link with a yes/no button with room for comments could be added to the EH&S web site. The Chair asked for a vote and the committee unanimously agreed with the online voting option.

III. Smoking Issues

Lee Poore, Manager of Occupational Health and Safety began the discussion by giving a brief presentation regarding smoking on campus. Poore informed the committee about a complaint her department received related to someone smoking in an area that was not designated as a smoking area. This call led Poore to investigate the smoking policy at the university. She began by determining if the University had any type of regulation similar to the LFUCG Smoking Ordinance established in Fayette County.

It was determined that KRS 61.165 exempts the University from the smoking ban in Fayette County. Poore also discussed this issue with Bruce Lankford in the UK Office of Legal Counsel. He confirmed that the University is governed by the Board of Trustees. It is the entity that determines if the University will comply with local ordinances. It was determined that there was an existing HR Policy that stated a person cannot be discriminated against based on their smoking status. Poore concluded that there is no overall policy for the entire university. As a practice, smoking is only allowed in designated areas. For designated smoking areas within buildings, air cannot be re-mixed and there has to be 100% air exhaust. As far as comparisons

with other Universities, Poore stated most do have policies that do not allow smoking inside buildings.

Hibbard asked if he was correct in thinking that there was no smoking inside the Medical Center. Poore confirmed that was correct and that the Medical Center had created designated areas for smoking. Chair Strobel asked Poore what exactly was on the "books" at the moment. As far as Poore could determine, the only written policy is found in the Faculty Handbook. For the most part, there is a no smoking policy around campus.

Chair Strobel asked as to what happens when an employee does not like the smoking around them and reports it. Poore stated that the complaints would be directed to Human Resources. Bart Miller from Human Resources stated the issues would probably be referred to Employee Relations, but the fact still remained there is no set policy for the entire campus. Chair Strobel asked Beach as to what would happen if a person smoked in a sprinkled building. Beach replied that isolated cigarette smoking would probably not cause a fire alarm to be activated. There are more smoke alarms and fires from microwaves than from cigarette smoking. Hibbard reported that EH&S does receive calls reporting the smell of cigarette smoke coming through air vents. It would be helpful to have a policy in place for when situations or complaints arise. The Chair concluded the discussion by asking for more investigation into the issue and then to report back to the committee.

IV. Old Business

15-Passenger Vans

Jason Burns from Occupational Health & Safety updated the committee on the actions taken by the Accident Review Board. He reported the Board adopted a letter written to EVPFA Frank Butler which recommended prohibiting the rental, purchase and driving of all 15-passenger vans. The letter also recommended removing the rear seats in all of the 15-passenger vans currently in use, thus allowing the vans only room to carry 11 people (10 plus the driver). Also recommended was to install a UK specific rollover sticker and/or hangtag in University owned vans. Burns stated that he believed the letter was a step in the right direction, but also mentioned the need to find an alternative to the
15-passenger vans in the future.

The committee inquired as to if drivers are referred to the online training when attempting to checkout a van. Burns answered that the referral was not yet in practice. Poore informed the committee that the College of Agriculture is the only group on campus which requires their faculty and staff to present a card as evidence of having completed the training. The discussion concluded with the committee's request to be updated at its next meeting on the status of the letter sent to Frank Butler.

VI. New Business

Committee member Ed McClure from the Medical Center PPD presented a handout to the committee and briefly commented on some upcoming construction projects on campus.

The Chair also announced that those members who will soon roll-off the committee should find nominees they think would be interested in replacing them.

VII. Next Meeting Date

The next meeting was scheduled for noon on January 26, 2006, at a location to be determined. The spring meeting was tentatively set for March 22, 2006 at 2pm.

VIII. Adjourn

The meeting adjourned at 3:30 pm.

Meeting Minutes
Committee on Safety and Environmental Health
January 26, 2006
102 Mining and Minerals Resources Building

Members Present:
Hebert Strobel ('07) – *Chair*
John Anthony ('07)
Ben Crutcher ('08)
Ed McClure ('08)
Nicholas McLetchie ('06)
Larry Piercy ('06)
J. W. Yates ('06)
Bart Miller ('08)
Patty Bender (*Ex-Officio*)
Travis Manley (*Ex-Officio*)
Don Thornton (*Ex-Officio*)

Guests:
Garry Beach
Lee Poore
David Hibbard (for Susan Pollack '07)
Jason Burns
Megan Cormney

Absent: Thomas Kluemper ('08), Richard Riedl ('07), Rodney Stiles ('07), Gus Miller ('08), Warren Denney (*Ex-Officio*), Tomi Ross (*Ex-Officio*), Ada Sue Selwitz (*Ex-Officio*).

I. Approval of Minutes

The minutes from the November 15, 2005 meeting were approved.

II. Prior Policy Reviews

Minors in Research Laboratories or Animal Facilities Policy

David Hibbard, Director of the Environmental Health and Safety (EH&S) informed the committee that an online vote had been obtained on this policy since the last meeting. A quorum of 8 votes for, with none against was received. The policy was endorsed by the committee and was to take effect immediately.

Evacuation Policy (Mandatory) Fire Alarms

As directed by the committee at its last meeting, this policy was amended to include the statement:

> Persons refusing to evacuate or prohibiting others from evacuating will be subject to disciplinary action in accordance with Human Resources Policy and Procedure Number 12.0.

An issue was raised that it was not always safe to immediately evacuate a building or laboratory. There could be instances when a project needed to be shut down or areas locked before evacuating. Garry Beach, University Fire Marshal responded that there are internal procedures established for these situations. Affected individuals should be trained by their supervisor/instructor on how to respond.

Committee member John Anthony pointed out that there could be instances when he would have to shut down chemical operations in an area before he could evacuate the building. He asked if he was going to be held accountable in those situations for not evacuating. Mr. Beach responded that he would not pursue follow-up action against anyone in that situation provided the reason was to prevent further propagation of a fire and/or an explosion. Mr. Beach stated that the

hospital needed to have its own policy regarding evacuation. Christy Giles was in the process of developing such a policy.

The committee discussed whether a code of conduct should be added or attached to the policy. Mr. Beach stated that the policy does apply to everyone. Mr. Hibbard pointed out that the disciplinary actions in the policy are only applicable to employees. The Code of Student Conduct should be referenced in the policy to cover student behavior. Mr. Beach stated that the University depends on firemen to go into the building only if asked or needed. The Fire Marshal's Office would notify administration or a supervisor, and also notify Human Resources to help enforce any consequences for non-compliance. Mr. Hibbard stated that the policy would be amended to include a reference to the Code of Student Conduct.

Chair Strobel asked for a motion to endorse the policy with the aforementioned modifications. The motion was made and seconded. All were in favor, and the policy was endorsed.

Microwave Policy

The committee had requested clarifications on the following:

- type of outlets and extension cords allowed
- size (wattage) limitations
- approved use in residence halls with smoke detectors

The policy was amended to include the requirement that:

> The unit(s) must be plugged directly into a hard-wired electrical outlet (no extension cord or power strips under any circumstance).

Mr. Beach stated that the Office of Residence Life has a policy that limits microwave maximum output to 700 watts of cooking power within residence halls. In non-residence hall buildings, microwaves of similar size and output are typically used. Mr. Beach recommended the policy not be amended at this time to include non-residence hall buildings. The committee concurred.

The policy was amended with the following paragraph to clarify the use of microwave ovens in residential rooms with smoke detectors.

> For existing units in rooms with smoke detectors, contact the University Fire Marshal's office for evaluation/corrective recommendations. Residential (dormitory) rooms may continue to use microwave units but must be located to minimize the potential activation of the smoke detector. In addition, the unit must meet the size requirements established by the Office of Residence Life. Activation of the building's fire alarm system via a microwave within a domicile room will be investigated by the University Fire Marshal's office.

Chair Strobel asked for a motion to endorse the policy with the aforementioned modifications. The motion was made and seconded. All were in favor, and the policy was endorsed.

Space Heater Policy

Per the committee's request at its last meeting, an additional clarification was added in Item #8 stating kerosene heaters were prohibited. No vote required.

III. New Policy Reviews

Natural Gas Emergency Response Procedures

This policy was established to provide guidance on what to do in the case of a natural gas emergency.

Chair Strobel asked if all three situations referenced in the policy were required to be present before an alarm was sounded. Mr. Beach replied that all three needed to be present before anyone is alerted.

Lee Poore, Manager of Occupational Health and Safety stated that a procedure has been developed to prevent excess emissions of ethanethiol or mercaptans from being produced within fume hoods and being exhausted to the outside. This procedure has been incorporated into the UK Model Chemical Hygiene Plan and the required lab safety training. Mercaptans are an odorant added to natural gas to allow the gas to be detected by sense of smell. There have been incidents where the total evacuation of buildings has occurred due to the excessive use of mercaptans in laboratories and the emissions being detected inside and outside the affected building.

It was suggested that the word "plan" be inserted where "Emergency Response Call List" is referenced. Mr. Beach stated he would modify the policy to reference the "Emergency Response Plan Call List"

Chair Strobel asked for a motion to endorse the policy with the aforementioned modifications. The motion was made and seconded. All were in favor, and the policy was endorsed.

Electrical Policy

Mr. Beach informed the committee that the improper use of extension cords continued to be a problem. He reiterated that extension cords could not be used as permanent wiring.

The committee had open discussion regarding the violation of this policy and how in some cases it could not be avoided due to the lack of electrical outlets in some buildings. Mr. Beach stated that if additional outlets were required, the affected department should request a work order to have PPD install additional outlets.

Regarding enforcement, Mr. Beach stated he would initially ask people who violate this policy to correct the hazard. If the hazard was not corrected, he would forward a letter to the affected individual and associated supervisor stating the hazard needed to be corrected. In the case where the individual still do not comply, he would confiscate the extension cord and alert management of the situation.

Ms. Poore stated that extension cords in laboratories are an OSHA violation and that her department documented these as violations as part of the laboratory inspection program.

The committee suggested that two modifications be made to the policy. The third bullet should be reworded to clarify that the supply cord is associated with a surge protector. The fourth bullet should also reference that cords cannot traverse ceilings. Mr. Beach stated the modifications would be made.

Chair Strobel asked for a motion to endorse the policy with the aforementioned modifications. The motion was made and seconded. All were in favor, and the policy was endorsed.

Open Flame Policy

Mr. Beach began the discussion by informing the committee there had been some serious situations in the past with candles in residence halls. He further stated there had been some situations where he had approved the use of an open flame with restrictions. Chair Strobel put forth that the phrase "without the approval of the University Fire Marshal" should be added to the end of Item A in the policy.

It was determined that Item B of the policy needed a clarification on where hot work could be performed. A statement exempting approved permanent workstations from hot work permitting would be added to the policy.

Chair Strobel suggested that the statement "prohibited without approval from the University Fire Marshal's Office" be added to Items G, H, and I.

Chair Strobel asked for a motion to endorse the policy with the aforementioned modifications. The motion was made and seconded. All were in favor, and the policy was endorsed.

IV. Old Business

15-Passenger Vans

Mr. Hibbard stated to the committee that everyone should have received the campus-wide email from EVPFA Frank Butler informing them of the university's policy on van use. The policy also specifies the requirement to obtain training.

Jason Burns with Occupational Health and Safety informed the committee that his department had updated the online training. There had been an increase in the number trained since the email had been issued.

Smoking Issues

Ms. Poore gave a PowerPoint presentation outlining UK's smoking policy and how it compares to our benchmarks. UK does not have an official Administrative Regulation concerning smoking. However, there is a memo written by then President Wethington dated 1993 that mandated administrators to develop smoking policies for UK buildings that meet the requirements set forth in KAR 6:045E. UK has been officially silent on the smoking policy issue since then, even as the state has adopted KARs that supersede the Emergency Executive Order issued by the governor. UK has also not adopted the city of Lexington's indoor smoking ban. Eighteen of 19 UK benchmarks have some type of policy. Thirteen have a total ban on smoking indoors.

Chair Strobel asked the committee if an official smoking policy needed to be developed. Mr. Hibbard indicated that Occupational Health and Safety receives a few cigarette smoke complaints a year. Committee member Patty Bender, Office of Institutional Equity, stated that her office receives several complaints every year of employees who have to walk through smoke at building entrances. She also indicated that there are two cases in Kentucky appellate courts concerning this issue. In Ms. Bender's opinion, at least one of these cases would be won by the defendant and UK would have to implement a policy at some point that regulated smoking at handicap accessible doors. For this reason, Ms. Bender recommended the committee work on a policy.

The consensus of the committee was that the creation of an official smoking policy should be further explored. Chair Strobel suggested that Ms. Poore pull together example policies from benchmarks and present them at the next meeting.

Prospective New Committee Members

Terms to Expire in 2006
Nicholas McLetchie-COAS/Biology Dept.
Larry Piercy-COA/Ag. Engineering
J.W. Yates-COE/Kinesiology and Health

Mr. Hibbard solicited the committee for new member nominations due to three existing members rolling off at the end of the year. Mr. Hibbard asked the committee to forward potential names to him by the end of the month.

IV. New Business

Christy Giles, Director of Emergency Management made the committee aware of an Influenza Task Force created at the University. The Task Force was working on developing policies, procedures and best practices regarding the threat of an Avian Flu Pandemic. Chair Strobel requested that an update on the efforts of the Task Force be presented at the next meeting.

VII. Next Meeting Date

The next meeting was set for March 22, 2006 at 2:00pm. Refreshments would be provided.

VIII. Adjourn

The committee was adjourned at 1:20pm.

Meeting Minutes
Committee on Safety and Environmental Health
2:00 PM/March 22, 2006
102 Mining and Minerals Resources Building

Members Present:
Herbert Strobel ('o7) – *Chair*
Thomas Kluemper ('08)
Nicholas MeLetchie ('06)
Susan Pollack ('07)
Richard Riedl ('07)
Rodney Stiles ('07)
Bart Miller ('08)
Gus Miller ('08)
Don Thornton(*Ex-Officio)*

Guests:
David Hibbard
Lance Broeking
Ken Clevidence
Garry Beach
Andy Miller
Lee Poore
John Summersett
Bill Garner
Christy Giles (for Travis Manley, *Ex-Officio*)
Doug Harrison
Mary Maley
Tina Carpenter
Helene Lake-Bullock
Jan Hamon
Megan Cormney

Absent: John Anthony ('07), Ben Crutcher ('08), Ed McClure ('08), Larry Piercy ('06), J.W. Yates ('06), Patty Bender (*Ex-Officio*), Warren Deny (*Ex-Officio*), Travis Manley *(Ex-Officio*), Tomi Ross (*Ex-Officio*), Ada Sue Selwitz (*Ex-Officio*).

I. Safety Awards

Mike Kidwell, *Physical Plant Division – Building Operator*

For his foresight in investigating the safe operation of an old furnace in the Gaines Humanities Center prior to its activation. His efforts determined that modifications to the furnace were necessary and prevented dangerous levels of carbon monoxide from building up within employee work spaces.

Mary Maley, *Office of the Senior VP for Research and Infrastructure*

For her continuing efforts in the Bosomworth Health Sciences Research Building in ensuring compliance with safety requirements by research faculty and staff. Her efforts have also minimized the disruption of research activities due to facility problems and required maintenance.

Christopher Buford, Physical Plant Division – Medical Center

For his prompt efforts in responding and correcting mechanical system problems in the Medical Center, particularly the critical research facilities in the Bosomworth Health Sciences Research Building.

Charlie Laue, *Physical Plant Division – Building Operator*

Charlie played a key role in the evaluation of fire alarm audibility for various buildings. He ensured the required annual testing of fire alarm systems was completed. He also provided assistance to the UK Fire Marshal in testing various building atrium smoke evacuation systems.

III. Subcommittee Reports

Chemical Safety Committee

Jan Hamon, Safety Specialist - Department of Occupational Health and Safety stood in for Chair Barbara Knutson who was unable to be present at the meeting. Ms. Hamon gave an overview of some of the committee's accomplishments during the Fiscal Year. She discussed an incident where Environmental Management picked up a container of Piranha waste and it exploded at the EQMC. No one was injured, but the committee is reviewing guidelines for safe handling of Piranha waste and will make recommendations.

Ms. Hamon discussed another incident where the Lexington Fire Department responded to various perceived natural gas leaks within the Chemistry/Physics Building. The cause of the odors was attributed to the use of mercaptans (thiols) within various laboratories. Mercaptans smell like natural gas thus causing the false alarms. To address this problem, the committee has reviewed and posted procedures for the use of Mercaptans in the laboratories. Additionally, the committee identified the users of Mercaptans and notified those individuals of the policy.

The committee also reviewed and approved the *Minors in Research Laboratories or Animal Facilities Policy*. Data was reviewed from the Worker's Care database. The committee noted there were about eight injuries reported during the Fiscal Year involving laboratory areas. All injuries were minor consisting of incidents of cuts from cleaning glassware and similar accidents.

The University's Model Chemical Hygiene Plan was reviewed and updated. Major change made was the relocation of all required forms to the back of the manual for easy reference. The 2006 Chemical Hygiene Plan is in print and available online.

Institutional Biosafety Committee

Dr. Doug Harrison of the Institutional Biosafety Committee gave a summary of the committee's work. The IBC has received 108 applications for review since April 1, 2005. Fifty-three of those applications required full IBC review. The issue of testing for replication competency in recombinant viral vectors was discussed by the committee. This testing is now required by the IBC when those vectors would be used in live animals. Dr. Harrison pointed out that published references addressing the topic are now posted in a resource chart on the Biosafety homepage.

The IBC also modified and approved the *Minors in Research Laboratories or Animal Facilities Policy* developed by the Department of Biological Safety. The policy promotes the safe interaction between minors and research facilities. It also informs parents of the potential hazards involved in the projects the minors would be participating in. Lastly, the University Select Agent Program had undergone a three-year renewal process. The IBC worked with the Responsible Official and the Alternate Responsible Official to revise some practices and procedures found inadequate by the Centers for Disease Control (CDC). Final CDC approval was pending.

Radiation Safety Committee

Andy Miller, Director of Radiation Safety provided a summary of committee accomplishments. Mr. Miller began by explaining that one of the core responsibilities of the committee was to approve all Authorized Users who use isotopes for the diagnosis and treatment of diseases. In addition, the committee also approves all laboratory uses of radioactive materials. The committee also approves licenses for Medical Broad Scope and Academic Broad Scope uses. Providing guidance on the administration of the Irradiator and GammaKnife licenses is another continuing function of the committee.

Mr. Miller went on to report that routine license amendments have been processed for all licenses. All of the licensed activities are confined to the University of Kentucky campus. The University now has authorization to use certain gauges at temporary sites anywhere in the Commonwealth. Mr. Miller

informed the committee that a new license application had been submitted to the Commonwealth for the possession and use of a source at a regional cancer center in Morehead, KY. This license would be separate from the Medical Broad Scope license.

Specific security upgrades for large sources are currently in progress and will be completed this Fiscal Year. Mr. Miller informed the committee there had been some additional staff members added to the Radiation Safety Office. The result should be even better customer service and an increase in regulatory compliance.

IV. Pandemic Planning-Emergency Management

Christy Giles, Director of Emergency Management provided the committee with an overview of her office's activities. In October 2005, a task force was formed to prepare for possible flu pandemics. The task force contains representation from all areas of campus including administration, experts and students. The task force is looking at a tiered approach when responding to a pandemic. She informed the committee that there were five phases to the tiered approach. The University was currently in phase one. Phase one involved the monitoring and tracking of deaths from an illness outside the United States.

The second phase occurs when there is a confirmed person to person transmission case within the United States. This situation does not yet exist. A University response plan to this phase is under development.

The third phase occurs when there is a confirmed case in the area, such as in the state or surrounding states.

The forth phase occurs when there is a confirmed case in Fayette County.

The fifth phase occurs when there is a confirmed case on the University campus. The University's Business Continuity Plan has the potential to be activated depending on the spread of disease.

Ms. Giles elaborated that the task force was in the initial stages of developing sub-committees to work on specific issues. Chair Strobel asked who on campus commissioned the creation of a task force. Ms. Giles replied that it was an ad hoc committee developed out of her office in response to cases of the bird flu in other countries. Ms. Giles stated that the Federal, State and County governments have massive plans to address pandemic situations. The University's plan would have some degree of integration with these plans. Chair Strobel thanked Ms. Giles for the report and stated the committee would be looking forward to her next report at the September meeting.

V. Old Business

Smoking Policy

Lee Poore, Director of Occupational Health and Safety gave an update on her review of the University's benchmark institution smoking policies. Ms. Poore distributed a handout comparing the benchmark's policies on smoking. Overall, most of the policies were short in length. They generally stated no smoking on campus in university owned buildings or those leased. A few went so far as to require individuals to stay between 25-50 feet away from doors when smoking outside of building entrances. In the absence of a policy, the benchmark left the smoking restrictions to be decided by each building.

Lance Broeking of Campus Services informed the committee that he was on the Administrative Regulations (ARs) Review Committee. He stated he was willing to take the committee's feed back or suggestions to the AR Review Committee. Chair Strobel asked Mr. Broeking if all Administrative Regulations had to be approved by the Board of Trustees (BOT). Mr. Broeking stated the BOT can delegate authority to the President to promulgate certain ARs. The AR on smoking was one of these.

Garry Beach, University Fire Marshal stated there have been some incidents in chemical laboratories, assembly areas and offices involving smoking. In his opinion, smoking should not be allowed, but he suggested there should be designated smoking areas.

David Hibbard, Director of Environmental Health and Safety asked how the benchmarks enforced their smoking policies. He thought that there would need to be some type of report mechanism for violators. Ms. Poore stated that the University of Michigan delegates the enforcement of its smoking policy to the perpetrator's supervisor. Human Resources would also be involved if a violation were to recur. Mr. Broeking stated that the smoking issue came across his desk when inspections of University Fraternity and Sorority houses revealed "smoking areas." Currently there is no policy to enforce non-smoking with associated disciplinary action.

Chair Strobel remarked there seemed to be a consensus among the committee to have some type of policy. Chair Strobel suggested the formation of an ad hoc committee to work over the summer and to have it present suggestions at the next meeting. Mr. Hibbard agreed that the committee needs to go "on record" regarding their position on the smoking issue. Mr. Miller made the motion to pursue development of a smoking policy for the University. The motion was seconded. All were in favor, and the motion passed. Chair Strobel asked Mr. Hibbard and Ms. Poore if they could complete a draft by the next meeting and they concurred. Mr. Broeking put forth that he would take the draft to the ARs Review Committee with the endorsement of the Committee on Safety and Environmental Health.

Ms. Poore solicited the committee on what should go in a smoking policy. She suggested the policy should include a total ban on inside smoking, specify distances away from building entrances that would be smoke free, and require smokers to dispose of waste in appropriate areas. The committee agreed. It also wanted to include very specific descriptions in the policy. Mr. Broeking suggested that the writers of the policy be very careful in how they word the regulations. If people did not like the policy or feel it is unfair, they could invoke the health and safety argument, saying it is a danger making people stand so far away from buildings or go outside at night, etc.

Ken Clevidence, Associate Vice President for Campus Services asked if smoking was allowed in University vehicles. Ms. Poore responded that smoking was allowed in some vehicles, and in others it was not. The committee also suggested the inclusion of off campus University buildings when developing the policy. Ms. Poore stated that any designated area should be built and maintained to required standards. However, it can be very expensive to keep indoor areas in compliance. The discussion regarding a potential smoking policy ended with a draft and update anticipated at the next committee meeting.

VI. Approval of Minutes

Chair Strobel noted that the committee now had a quorum and should vote on the approval of the minutes from the January 26, 2006 meeting. The committee members reviewed the minutes and a motion was made and seconded to approve the minutes. All were in favor and the minutes were approved.

VII. New Business

Ms. Poore updated the committee on the progress of the 15-Passenger van issue. Her department was in the process of identifying all 15-Passenger drivers at the University and locating those individuals who need the required training. The question was raised regarding the large amount of vans that the College of Agriculture uses and how to ensure the vans are in compliance. Ms. Poore reported that out of approximately 115 15-Passenger vans on campus, the College of Agriculture has approximately 20. The College of Agriculture had been compliant in removing the last row of seats.

Another variable is that the Plant Assets Vehicle Inventory does not differentiate between vans, i.e., 12-Passenger vs. 15-Passenger, etc. Mr. Hibbard stated that the email sent out by Frank Butler was very

specific as to how to comply. Chair Strobel acknowledged this effort was an ongoing process and would look forward to an update regarding this issue at the next meeting.

VIII. Next Meeting Date

Chair Strobel informed the committee the next meeting was planned for the second or third week in September 2006. He took a moment to acknowledge three of the committee members who were rolling off the committee after the meeting; Nicholas MeLetchie from Biological Sciences, Larry Piercy from Agriculture Engineering and J.W. Yates from Kinesiology and Health. Chair Strobel thanked the three committee members for their participation and contributions to the mission of the committee.

IX. Adjourn

The meeting was adjourned at 3:15pm.