

THE UNIVERSITY OF TENNESSEE SYSTEM OUTLINE FOR FY 2011 ANNUAL SAFETY AND HEALTH REPORT

The University of Tennessee's Safety and Health Plan, approved by the Board of Trustees and registered with TOSHA, requires that each campus or unit submit an annual report on safety and health activities. The purpose of this annual report is to provide an overview of safety and health activities at each campus and unit of the University of Tennessee.

The annual reports are developed by each safety officer and submitted to the university-wide director of safety and health by July 15 of each year. All reports will then be combined and forwarded to the president of the university for submission to the state of Tennessee.

The attached is the University of Tennessee – Chattanooga's contribution to this effort.

Jim Pulliam
UT Chattanooga
Safety Officer

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TOPICS FOR REPORT:

1. **Program Objectives for FY 2011**

The following is the report of program objectives for the fiscal year and information on the progress made toward these objectives.

Objective 1. Develop a full scale emergency response drill for the campus – Although small scale tabletop exercises have been conducted during the course of the past year while reviewing and updating the campus emergency response plans, a full-scale exercise is needed to identify any existing deficiencies in the university’s emergency planning efforts. A goal of the Office of Safety and Risk Management is to utilize the expertise of local emergency response officials to assist in the development and implementation of a disaster drill during the 2010 -2011 year.

Progress: The campus conducted a campus wide tabletop exercise on May 17th, 2011. This scenario involved an explosion, fire, and partial collapse of an academic building. This event made the building unusable and required the development of a plan to relocate classes to other areas on and off campus. Players in this exercise included the following:

- University of Tennessee Chattanooga:
 - Human Resources, Public Safety, Student Development, Academics, Facilities, University Relations, Business Services/Information Technology, Records, Health Services, Safety & Risk Management, Chemistry Department, and the Counseling Center.
- City of Chattanooga:
 - Chattanooga Police Department
 - Chattanooga Fire Department
- Hamilton County:
 - Hamilton County Emergency Medical Services
 - Hamilton County Emergency Management Agency
- U.S. Department of Homeland Security
- Tennessee Department of Homeland Security

Objective 2. Complete data acquisition for compliance with the recently enacted “Campus Fire Safety Right to Know Act” - This law is designed to increase fire safety awareness on college/university campuses across the nation by providing students and their families with the fire safety records of colleges/universities. The act was designed to require post-secondary institutions to publicly display fire safety information and statistics, much as they already do with other safety statistics, such as campus crime statistics. This information would inform prospective and current students of the policies, concerns and fire safety conditions that are present at the institution in which they have applied or are enrolled. The Campus Fire Safety Right-to-Know Act requires colleges to report fire safety information to the U.S. Department of Education. As a result, UTC will be required to make annual fire safety reports available to the public. These reports must include the following:

- The number of fires and the cause of each fire.
- The number of injuries and deaths related to a fire.
- The value of property damage caused by a fire.
- Descriptions of the fire protection in place (alarms/sprinklers) in each on-campus housing unit.
- The number of regular mandatory, supervised fire drills; policies or rules regarding fire safety education and training programs provided to students, faculty, and staff.

Progress: In September of 2010 the UTC Annual Fire Safety Report was published and contained all information as required by the Department of Education. A copy of the report is maintained in the Office of Safety and Risk Management and is also available on the UTC website. As part of the ongoing reporting process, an up to date log of all actual fires is maintained by the Office of Safety and Risk Management and is available for review prior to annual publication. All data captured during the annual reporting period will be rolled forward into next year’s annual report.

2. **Other Significant Accomplishments**

HEALTH AND SAFETY ADMINISTRATIVE PROGRAMS.

- The Office of Safety and Risk Management continued to partner with the Chattanooga Fire Department to provide interactive fire and life safety training for all Housing staff. 100 + housing staff and students received fire safety and fire extinguisher training.
- Received federal stimulus funds for a one year appointment of a Safety Inspector. This position helped with SPCC, fire safety, haz-waste and OSHA facilities inspections.
- Received a Dept. of Education Emergency Management in Higher Education grant for \$499K. It will be used for emergency planning, employee training, a public alert warning system and to host a national “best practices in Higher Ed emergency planning” conference. The grant will also fund an emergency planning technician position for two years.
- Completed an extensive chemical inventory move after the chemistry building renovation was completed.

HEALTH AND SAFETY TRAINING AND OPERATIONS

- Conducted numerous safety training sessions - OSHA compliance, fire safety training for RAs, RDs and first responders, hands-on fire extinguisher training for various groups and CPR/AED training for Campus Police.
- Campus Police – Fall 2010 to present: CPR and AED, elevator rescue, medical calls, fire alarm response, evacuation procedures, fire panel locations and operation, fire extinguisher training, property damage and injury response and reporting.
- Housing Staff and Residents – Fall 2010 to present: Fire extinguisher training, fire alarm response, evacuation procedures, shelter in place, room inspections for hazards, property damage and injury reporting.
- Arena Security – Fall 2010 and ongoing per event: Fire extinguisher training, evacuation procedures, fire alarm response, medical emergencies, life safety issues and inspections, property damage and injury reporting.
- Campus Recreation – Fall 2010: Fire Extinguisher training, fire alarm response, evacuation procedures, shelter in place, lightning, flooding, high winds (outdoor sports), travel emergencies, CPR and AED, medical emergencies, property damage and injury reporting.

- Maintenance Personnel – Annual OSHA training as applicable – Right-to- Know, Bloodborne Pathogen, Confined Space Entry, Asbestos Awareness and Lock-out/Tag-out.

EMERGENCY MANAGEMENT TRAINING AND OPERATIONS –

- Initiated an Emergency Management Exercise program. To date we have completed the following department level exercises:
 - A terrorist kidnapping of a group of students
 - A bio-terror attack.
 - A bus accident involving the men’s basketball team.

- Completed four departmental emergency plans utilizing new E Planning template.
- Working with Hamilton County Emergency services and City 911, numerous building address discrepancies were corrected.
- Coordinated Federal and Tennessee DHLS cyber resiliency assessment for UTC Information Technology Division.
- Coordinated a Tennessee DHLS critical infrastructure assessment of the Mackenzie Arena.
- Started the process to upgrade weather alert and warning capabilities on campus and to have the campus designated “Storm Ready” by the National Weather Service.
- Hosted local emergency responders as part of the University’s community outreach initiative to allow them to accomplish the following training:
 - Chattanooga PD SWAT Team - Hostage situation dynamic entry exercises, hostage situation negotiation exercises, and door breaching hands on training.
 - Chattanooga PD Bomb Squad - Simulated device on upper floors of a building.
 - Chattanooga Fire Department Special Operations - High angle rescue operations.
 - Chattanooga Fire Department Suppression Division – multi-company scenario based training operations.

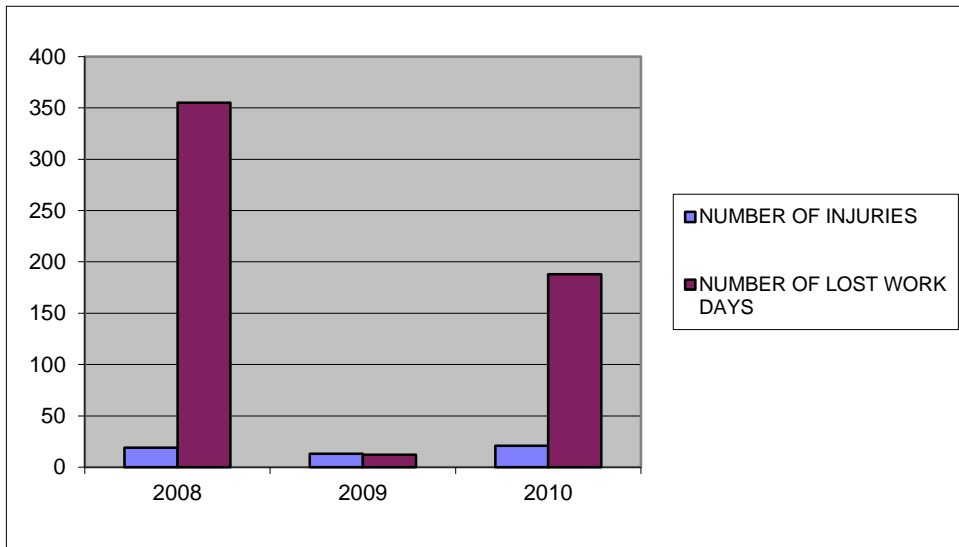
3. Accident/Incident Rate Analysis

Analyze accident/incident severity rates and/or numbers and compare with previous years.

UT Chattanooga experienced a slight increase in work place injuries during the last fiscal with a significant increase in the number of lost work days. However, 180 of the 188 lost work days were the result of a repetitive motion injury that resulted in surgery.

OSHA RECORDED INJURIES 2008 - 2010

	2008	2009	2010
NUMBER OF INJURIES	19	13	21
NUMBER OF LOST WORK DAYS	355	12	188



4. **Significant Accidents and Incidents**

Describe significant accidents/incidents in order of severity. Include any TOSHA inspections, complaints and results of investigations.

- On 1-29-11 at approx. 11:20 pm, UTC Police responded to a fire in room #132 of the UTC Lockmillers Apartments. Investigators determined that the cause of the fire was a water hookah pipe that had been used and then left unattended. The coals inside the pipe sparked into a pile of clothing and caused a fire to start in bedroom A of the apartment. The building fire alarm was activated and the surrounding apartments were evacuated. The Chattanooga Fire Department responded and extinguished the fire. Room #132 was significantly damaged by the fire and was not inhabitable. Damage was estimated at \$50,000 to state property and \$50,000 to personal property making this an approximate \$100,000 property loss.

5. **Problems Relating to Safety and Health**

State safety and health problems by degree of seriousness.

- January 9th Winter Storm – This event closed the campus for 5 academic days.
- April 27th Tornado outbreak – Tornados struck the metro area killing 17 within our student commuting area. No fatalities or injuries occurred among campus students, faculty or staff and no significant damage occurred on campus. The campus text message alerting system was activated to notify the campus population to seek shelter.
- Mercury Spill – Physical Therapy Skills Lab- Sphygmomanometer knocked off wall. Required hazmat clean-up by Quantum Environmental Engineering.

6. **Annual Safety and Health Review Findings**

Attach as an appendix the annual safety and health review results for the current fiscal year including abatement status. Indicate any safety and health hazards which have not been abated and the reason. SEE ATTACHED.

7. **Additional Safety Program Information**

Include any other information that you feel would be helpful in describing your safety and health program for the current fiscal year.

Federal ARRA dollars were hugely beneficial to the University's safety program during the 2010/2011 fiscal year. A limited duration appointment of a safety inspector provided for more thorough campus inspections as well as an enhanced safety presence on campus. ARRA funding was also used to provide for life safety upgrades in two University buildings as well as the purchase additional Automatic External Defibrillators for the campus.

8. **Program Objectives for FY 2012**

We have identified the following objectives for the upcoming fiscal year:

1. Complete installation of phase 1 of the Integrated Public Alert Warning System – Install digital alerting beacons in the 100 most utilized classroom spaces.
2. Upgrade and install new life safety information signage, including evacuation routes, assembly points, and shelter designations, in all academic buildings and all major areas open to the campus population.
3. Participate in the development and execution of a regional homeland security operational exercise to include responders throughout Tennessee Homeland Security Region II.

Appendix - A

THE UNIVERSITY OF TENNESSEE
2010-11 SAFETY REVIEW FACTORS

The following review factors are used as a guide for the annual safety review conducted at each university unit.

Campus/Unit:	UT Chattanooga	Review Date:	May 5, 2011
Safety Officer:	Jim Pulliam	Reviewer:	John Bossier
Date Completed:	May 5, 2011	Observers:	T. Pridemore, L. Gladden

Item 1: Review the program used to investigate all accidents involving staff, students and visitor.

UTC Comments:

The Safety Office is notified of accidents and injuries by way of employee injury reports furnished by the campus H.R. Dept. and by police incident reports from the Campus Police Dept. All accident reports are reviewed and accidents resulting in serious injuries or injuries that appear to be caused by unsafe conditions are investigated by the Safety Office.

Reviewer comments/recommendations:

System in place and working.

Abatements, if applicable

None at this time

Item 2: Review confined space entry safety on campus.

UTC Comments:

UTC has identified all manhole accessed valve pits and gas fired boilers as permit required confined spaces and has a written confined space entry program in place for access. All UTC personnel who may be required to enter a confined space are trained on an annual basis. Before any entry into a confined space, the space is checked with a four gas meter by trained personnel. All contract work taking place in UTC designated confined spaces is also required to be in compliance with the campus policy.

Reviewer comments/recommendations:

Written program reviewed. Permit form has checklist and sign-off space for personnel .

Abatements, if applicable

None at this time

Item 3. Review trenching safety on campus

UTC Comments:

All excavations on the UTC campus done by in-house staff require the written approval of the UTC Office of Safety and Risk Management prior to commencement of work. The approval process consists of submission of a *UTC Excavation Permit Request*. Location, depth of excavation, proximity of buried utilities, notification of Tennessee One-Call and proper guarding are all reviewed prior to permit issuance. It should be noted that excavations requiring shoring/benching/sloping to comply with OSHA regulations are done by third party contractors only.

Reviewer comments/recommendations:

No problems noted.

Abatements, if applicable

None at this time

Item 4. Provide a schedule of what training programs have been conducted on the campus during this fiscal year. Have documentation of completed training available during the review.

UTC Comments:

Safety and Risk Management has provided the following training during the previous year.

Campus Police – Fall 2010 to present

- CPR and AED
- Elevator Rescue
- Medical Calls
- Fire Alarm Response
- Evacuation Procedures
- Fire Panel locations and operation
- Fire extinguisher training
- property damage and injury response and reporting.

Housing Staff and Residents – Fall 2010 to present

- Fire extinguisher training
- fire alarm response
- evacuation procedures
- shelter in place
- room inspections for hazards
- property damage and injury reporting.

Arena Security – Fall 2010 and ongoing per event

- Fire extinguisher training
- evacuation procedures
- fire alarm response
- medical emergencies
- life safety issues and inspections
- property damage and injury reporting.

Campus Recreation – Fall 2010

- Fire Extinguisher training
- fire alarm response
- evacuation procedures
- shelter in place
- lightning ,flooding, high winds (outdoor sports)

- travel emergencies
- CPR and AED
- medical emergencies
- property damage and injury reporting.

OSHA Training

All Facilities personnel including physical plant, housing maintenance, arena maintenance, campus recreation maintenance and telecommunications are trained on an annual basis during the summer. The last training occurred in the summer of 2010 and the next training is scheduled for the upcoming summer 2011. The training is accomplished by both on-line training, face to face and instructor based group training.

Reviewer comments/recommendations:

Reviewer observed rosters from training courses provide by safety department, which included topic, date, and list of attendees; recipients of on-line training received certificated of completion. There is a potential issue with new employees not receiving much safety related information during orientation.

Abatements, if applicable:

Investigate feasibility/means of incorporating safety information in new employee orientation.

Item 5. Describe the emergency planning procedures for your campus/unit, if applicable.

Safety Officer Response:

UT Chattanooga has developed an Office of Emergency Planning that is now staffed by two emergency planners. This office is charged with all aspects of emergency planning for the campus. Accomplishments within the last 12 months include:

- Conducted three department level tabletop emergency exercises
- development of a “departmental emergency planning template” with four departmental plans completed and three scheduled for completion.
- receipt of an emergency planning grant from the U.S. Dept. of Education, upgrades to the existing emergency notification system including
 - Scrolling message boards for public areas
 - Installation of emergency alert receivers in the 100 most utilized classroom spaces.

- computer pop-up messaging for all computers on campus networks.
- In addition to these activities, a campus-wide tabletop disaster drill was completed May 17, 2011 which include city and county emergency responders as well as campus units.

●
Reviewer comments/recommendations:

Impressive program. The level of participation and “buy-in” by administration, faculty, and staff is evident. During discussions, it was noted that a current shortcoming of the program involves accountability of staff and students following an emergency.

Abatements, if applicable:

Investigate methods of accounting for individuals (staff, students, visitors) following an emergency.

Item 6. Describe your unit inspection program and process for follow up on abatements. Provide specific planned and completed inspection dates and plans for abatement follow-up in FY 2010-11.

Safety Officer Response:

The UTC campus is inspected on a monthly basis. Inspection points include

- fire extinguishers
- emergency lighting
- SPCC potential spill sites
- hazardous waste storage
- other required inspections.

Documentation of the inspections is by way of work orders which outline deficiencies for repair.

Lab inspections are conducted on an annual basis and were last completed in February 2011.

Housing inspections are conducted annually normally in the summer. South campus life safety inspections were completed in April 2011 and fire alarm inspections are schedule to begin in May 2011. North campus Housing inspections are scheduled for late Mary, early June 2011.

Reviewer comments/recommendations:

Work order system works well in capturing and keeping track of items.

Abatements, if applicable

None at this time

Item 7. Describe your inspection plan for any offsite/off-campus university-owned or maintained locations. Provide a list of locations, the last inspection dates and a schedule for future inspections.

Safety Officer Response:

The only off campus locations that are inspected regularly are the TVA test track which is used by the College of Engineering, and the Jones Observatory used by the Physics Department. Both are inspected on a monthly basis. Other off-site properties and their inspection status are as follows:

- 1500 RIVERSIDE DR./H2O QUALITY LAB – Bldg. # 8421 Has not been inspected within the last year but is not currently in use.
- WILDLIFE REHABILITATION CLINIC (Cash House) – Bldg. # 8502 Has not been inspected within the last year but is not currently in use.

Reviewer comments/recommendations:

Facilities not currently in use should be inspected prior to reuse. UTC staff receives requests to validate safety-related research activities at Non-UTC entities affiliated with the UT Health Science Center. These programs are not included in UTC inspection program.

Abatements, if applicable:

Clarify research compliance requirements, roles, and responsibilities with officials from the UTHSC Office of Research in Memphis.

Item 8. Specify up to four areas or departments you would like to have reviewed at your location. Note that both program and physical areas may be reviewed. Buildings with laboratories may be given priority. Additional sites will be selected by the reviewer.

Safety Officer Selections:

Fine Arts Center Theatres

Physical Therapy – Davenport Hall

Reviewer selections:

Fine Arts Center Theaters

Physical Therapy – Davenport Hall

Previous citations

Abatements, if applicable:

See Site Visits Section

Item 9. Review the campus' process for managing (reporting and reviewing) near misses.

Safety Officer Response:

This is a new requirement that UTC has not fully addressed yet. At this time the only way that we are made aware of 'near misses' are by way of emails or phone calls reporting safety issues and concerns. A file is maintained of near miss accidents and, to date, only two reports are included.

Reviewer comments/recommendations:

No comment. Process in development.

Abatements, if applicable

None at this time

Item 10. Review the campus's program to address noise, including audiometric testing, sound level surveys, training, use of personal protective equipment, recordkeeping, etc.

Safety Officer Response:

The Office of Safety & Risk Management has routinely inspected for and required hearing protection for certain job functions such as carpentry/machine shop equipment operation and the operation of grounds maintenance equipment. Toward completion of job hazard assessments for all university employees, S&RM has developed a database that identifies positions within campus operations that that may be subjected to excessive noise exposure. Exposure assessments are ongoing at this time to determine the need for a more aggressive hearing conservation program.

Reviewer comments/recommendations:

Continue progress in performing assessments of high noise areas.

Abatements, if applicable

None at this time

Item 11. Perform random site/other reviews of up to 20% (2 out of 10) of the citations noted during the FY 2009-10 annual safety review to be selected by the reviewer.

Safety Officer comments (if applicable):

See Site Visits Section

Abatements, if applicable

None at this time

Appendix - B

THE UNIVERSITY OF TENNESSEE

2010-11 Site Visit Results

Fine Arts Center Theatres

Scene Shop

Observation: Damaged exit lighting (Photo #1).

Corrective Action: A work order has been issued for correction.

Observation: Obsolete electrical panel. Unsure if energized. Consider demolition. (Photo #2)

Corrective Action: In planning for correction.

Observation: Chairs in egress pathway offstage (left). Area is darkened during performances. (Photo #3)

Corrective Action: Notice has been given to the shop manager to correct this issue.

Observation: Area is neat and organized. MSDS book maintained and readily available for consultation.

Corrective Action: No changes anticipated

Ward Theatre

Observation: Improper signage designating smoke hatches. (Photo #4)

Corrective Action: Notice has been given to the theater manager to correct this issue.

Observation: Insufficient ADA accessibility.

Corrective Action: Correction will require a capital project. This will be evaluated for placement on the list of requested projects.

Hayes Theatre

Observation: Insufficient lighting descending stairs.

Corrective Action: This will require coordination with theater management and campus facilities. A budget for correction will be developed and a determination for additional action will be made.

Observation: No hand rails (Photo #5)

Corrective Action: Installation will be coordinated with facilities.

Observation: Inconsistent stair depth may contribute to frequency of trip/fall incidents.

Corrective Action: Correction will require a capital project. This will be evaluated for placement on the list of requested projects.

2nd Floor Corridor

Observation: Insufficient egress clearance. Lockers, tables, and chairs in hallway. Minimum 48” width required for emergency egress. (Photo #6)

Corrective Action: The lockers do not reduce the exit width below the allowable minimum. Notice has been issued for responsible parties to move the tables and chairs.

Observation: No evacuation route posted.

Corrective Action: A campus wide project is underway to replace all evacuation route signage in all buildings campus wide.

Art Studio

Observation: No guard on saw (Photo #7)

Corrective Action: Notice has been issued to the department head to replace the guard on the saw or discontinue use.

Observation: Replace door knob on dark room to lever.

Corrective Action: A work order has been issued to change the door lever. The problem is a lack of clearance between the lever and the door.

Davenport Hall – Physical Therapy

General

Observation: No evacuation routes posted in building.

Corrective Action: A campus wide project is underway to replace all evacuation route signage in all buildings campus wide.

Cadaver/Anatomy Lab (306)

Observation: Discussed disposal of phenol waste. Dr. Tillman explained that process used in maintaining anatomical specimens does not generate waste.

Corrective Action: No additional action at this time.

Observation: Eyewash station is not easily assessable. It is located in cabinet under workbench.

Corrective Action: A work order has been issued to correct this issue

Observation: Leaky roof with discolored ceiling tiles (potential for mold growth).

Corrective Action: A capital project is underway to replace the roof of this building.

Appendix - C

THE UNIVERSITY OF TENNESSEE

Review of 2010 Site Visit Findings

Administration Building

Lunchroom

1. **Observation:** There was a broken cover plate on an electrical outlet behind a vending machine. This outlet is near the main entrance to the lunch room from the hallway.

Corrective Action: Cover plate has been replaced.

2. **Observation:** An exit sign should be provided for the exterior door. This was noted in the 2009 annual safety and health review.

Corrective Action: Exit sign is now in place.

3. **Observation:** The entry door to the lunch room from the hallway should be kept closed.

Corrective Action: This door leads from the hallway to a large break room. Both the hallway and the break room are fully sprinkled locations. We do not consider this a significant hazard.

Motor Pool

1. **Observation:** The eyewash should be tested weekly and a record of the test maintained. There is no evidence of eyewash being tested.

Corrective Action: Instructions have been issued to the shop workers that these inspections are required. Training has been provided to conduct the inspection.

2. **Observation:** It is recommended that acid neutralizer (for battery acid) be kept in the motor pool in the event of a battery leaks.

Corrective Action: Acid neutralizer is in place.

Carpentry Shop

1. **Observation:** There was a grounding pin missing from a power cord for the bench grinder. This was identified during last year's inspection and was found this year as well.

Corrective Action: All power tools and machinery now have grounded plugs.

2. **Observation:** TOSHA requires warning signs for non-containerized hazardous substances, such as wood dust. A laminated warning sign is enclosed and should be posted in the wood shop.

Corrective Action: No warning signage was visible.

3. **Observation:** An unsecured compressed gas cylinder was noted in this room.

Corrective Action: Gas cylinder has been removed.

Electric Shop

Observation: We encountered an open fused disconnect. Wire was connected to the load side of the fuses and being used to test electrical fixtures. A safer method must be developed; ideally one that uses listed approved technology.

Corrective Action: Currently the fused disconnect in question is being kept closed. If the employees need to test electrical fixtures, the power is first cut off at the breaker, the test wires are connected and fed out through cut-outs in the box, the breaker is turned back on and then testing can commence.

Collins Street Annex

Observation: This temporary structure houses Chemistry research labs that are awaiting completion of the building renovation. Overall this building was clean and in good condition. Tennessee Department of Environment and Conservation (TDEC) regulations require that vessels containing hazardous waste be kept closed. This can be very difficult to achieve with processes such as HPLC. In cases where hazardous waste drains to a collection vessel (e.g. 4-liter glass jug), secondary containment in the form of plastic tube is recommended. This will contain a spill in the event the vessel overturns and should meet the intent of a closed container.

Corrective Action: Secondary containment is now being used on all waste collection vessels.