



UNIVERSITY OF
GEORGIA

SPILL
PREVENTION,
CONTROL, AND
COUNTERMEASURE PLAN
TRAINING



UNIVERSITY OF GEORGIA

Environmental Safety Division

Prepared by



2018-D



Goals of SPCC Training

- Introduce campus personnel to the written SPCC Plan and describe its:
 - Purpose and Scope
 - Location and Availability
 - Certification and Amendment Processes





Goals of SPCC Training

- Identify oil storage locations and spill pathways
- Explain oil transfer procedures
- Discuss spill prevention measures
- Familiarize campus personnel with appropriate spill response procedures and use of response equipment





The SPCC Plan

Spill Prevention, Control & Countermeasures Rule

- Code of Federal Regulations 40 CFR 112 details requirements of the SPCC Plan.
- Establishes procedures, methods, and equipment requirements to help prevent oil spills reaching navigable waters¹.

¹*Oil can reach navigable waters via stormwater drains, floor drains, creeks, ditches, etc.*





The SPCC Plan

Spill Prevention, Control & Countermeasures Rule

- SPCC rules apply to facilities that have total ABOVEGROUND oil storage of more than 1,320 gallons and there is the potential for oil to reach streams or other water bodies.
- Containers with ≥ 55 gallon capacity count.





The SPCC Plan

What kind of oils are covered?

- Oils and greases, including petroleum oil, crude oil, refined oil, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes.
- Fats, oils, or greases of animal, fish, and marine mammal origin.
- Vegetable oils, including oils from seeds, nuts, fruits, or kernels





The SPCC Plan

Oil stored at UGA include:

- Fuel oil in aboveground tanks used for standby / emergency power and vehicle fueling.





The SPCC Plan

- New and used oil for vehicle maintenance, cooking, fire protection, etc.





The SPCC Plan

- Oil-filled operational equipment, such as electrical transformers, elevator reservoirs, and lifts.





The SPCC Plan

Oil Storage at UGA Campuses:

	ATHENS		GRIFFIN		TIFTON		SAPELO ISLAND		SKIDAWAY ISLAND	
	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity
ASTs										
Emergency Power	24	10,395	1	1,500	3	700	1	270	6	1,185
Fueling	1	1,000	-	-	4	3,500	-	-	-	-
Maintenance	7	2,330	-	-	-	-	-	-	1	296
Heating	2	1,190,700	-	-	-	-	-	-	-	-
Other	4	1,114	-	-	-	-	-	-	1	120
Total Tanks	38	1,205,539	1	1,500	7	4,200	1	270	8	1,601
Containers										
Kitchen	7	2,058	-	-	-	-	-	-	-	-
Maintenance	17	1,174	-	-	6	330	-	-	-	-
Other	1	55	-	-	-	-	-	-	-	-
Total Containers	25	3,287	-	-	6	330	-	-	-	-
Oil-Filled Operational Equipment										
Transformers	222	71,412	12	2,999	-	-	-	-	13	3,430
Elevators/Lifts	144	23,979	4	484	1	87	-	-	-	-
Voltage Regulators	57	4,845	-	-	-	-	-	-	-	-
Other	2	680	-	-	-	-	-	-	-	-
Total Oil-Filled Equip	425	100,916	16	3,483	1	87	-	-	13	3,430
Total Aboveground Oil Storage		1,309,742		4,983		4,617		270		5,031





The SPCC Plan

Oil Storage at UGA Campuses:

- Refer to tables and diagrams in SPCC Plan for list of oil stored, potential discharge volumes, flow pathways, etc.

Table 5-2 Aboveground Storage Tanks and Containers, Including Potential Discharge Volumes and Pathways – Athens Campus
(WITH CAPACITY ≥55 GALLONS)

LOCATION	BLDG #	TYPE	USE	CONTENTS	CAPACITY	POTENTIAL FAILURE	MAXIMUM VOLUME RELEASED (GAL.)	MAXIMUM DISCHARGE RATE	SECONDARY CONTAINMENT	FLOW DIRECTION	SEE DIAGRAM	INSPECTIONS/MAINTENANCE	
												FUNDING	PERFORMED BY
A.B.E.L.	2580	AST	Emergency Power	Diesel	100	Tank Failure Pipe Failure/Leak Tank Overfill	90 90 1-100	Gradual to immediate 20 gal/hr 50 gal/min	Doublewalled Tank Spill Response Materials Spill Response Materials	NE to ditch	Z8	RI	FMD
Animal Health Research Cntr.	1077	AST	Emergency Power	Diesel	1900	Tank Failure Pipe Failure/Leak Tank Overfill	1710 1710 1-100	Gradual to immediate 20 gal/hr 50 gal/min	Doublewalled Tank Spill Response Materials Spill Response Materials	N to drain	H4	RI	FMD
Biochemistry Equipment Canopy	2497	AST	Irrigation	Diesel	70	Tank Failure Pipe Failure/Leak Tank Overfill	70 70 1-100	Gradual to immediate 20 gal/hr 50 gal/min	Containment Curb Spill Response Materials Spill Response Materials	Surrounding Soil	Y5	RI	FMD
Bolton Dining Commons	2265	Container	Kitchen	Used Cooking Oil	294	Container Failure	294	Gradual to immediate	Doublewalled Container	NW to drain	E3	FOOD SRVS	FOOD SRVS
Boyd Golf Cntr.	2694	Container	Waste Oil	Used Motor Oil	294	Container Failure	294	Gradual to immediate	Doublewalled Container	Interior	Q4	AUX SRVS	AUX SRVS
Brumby Hall	2213	AST	Fire Pump	Diesel	144	Tank Failure Pipe Failure/Leak Tank Overfill	130 130 1-100	Gradual to immediate 20 gal/hr 50 gal/min	Rupture Basin Building Interior Spill Response Materials	SE to drain	E2	HOUSING	FMD
		AST	Emergency Power	Diesel	192	Tank Failure Pipe Failure/Leak Tank Overfill	173 173 1-100	Gradual to immediate 20 gal/hr 50 gal/min	Doublewalled Building Interior Spill Response Materials	SE to drain			

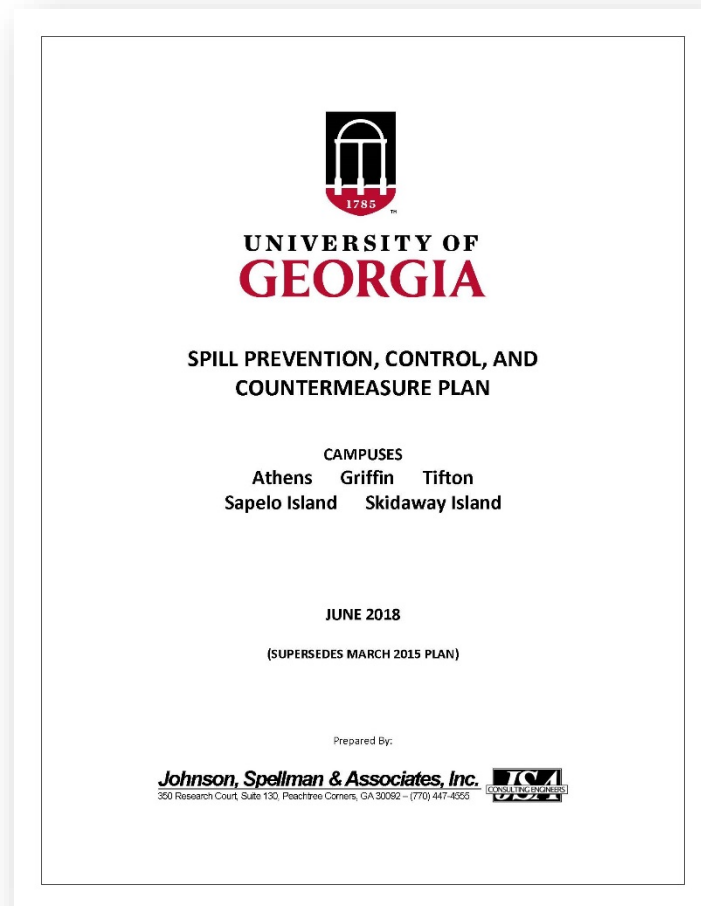




The SPCC Plan

What is an SPCC Plan?

A facility-specific, written document that describes how a facility's operations comply with regulation requirements.





The SPCC Plan

What is an SPCC Plan?

- Spill **PREVENTION** – preventing discharges of oil products used at the center, such as inspection and testing, security, and personnel training.
- Spill **CONTROL** – describes control measures in place to prevent a spill from reaching the environment.
- Spill **COUNTERMEASURES** – procedures for recovery, response, clean up, and disposal of oil spills.





The SPCC Plan

Who needs SPCC training?

- Employees that are involved in oil handling, transfer, storage, and maintenance of oil equipment or spill response.
- Training must be completed:
 - every year for existing employees or immediately for new hires or
 - if there is a significant change in the SPCC Plan.





Responsibilities

SPCC Coordinators (responsible for AST fuel and oil storage locations)

- Conduct monthly and annual inspections
- Conduct annual and new employee training
- Maintain and keep current all SPCC Plan documentation
- Initial response to a spill
- Notify Environmental Safety of spill
- Maintain spill kit materials adequate for oil storage





SPCC Coordinators

SPCC COORDINATOR	LOCATION
John McCollum	Athens Campus
Dale Hess	Griffin Campus
Tim Ross	Tifton Campus
Mary Price	Marine Institute on Sapelo Island
Chuck Hartman	Skidaway Institute of Oceanography / Marine Extension





Responsibilities

Environmental Safety Division

- Review annually and provide inventory changes from each SPCC Coordinator
- Review and provide updates/changes for SPCC Plan every five years and have certified by Professional Engineer
- Provide training assistance for SPCC Coordinator(s) and perform quality assurance audits
- Notify Regulatory Agencies
- File reports with Regulatory Agencies





Spill Prevention and Control

Oil Transfer

- A release is most likely to occur during oil/fuel transfer – always use good handling practices.
- Use commercial firms experienced in transportation and handling of oil products.
- Campus personnel must be present during oil transfer.





Spill Prevention and Control

Oil Transfer

- Level of product in tank/container is to be continuously monitored during the transfer process.
- Inspect vehicle before departure to ensure all lines have been disconnected and valves are closed.
- Immediately report any spill to Environmental Safety.





Spill Prevention and Control

Inspections

- Inspections Forms [Appendix B]:
 - **Record of Monthly Inspection** – Tanks/containers, oil-filled operational equipment (elevators, transformers, lifts)
 - **Record of Annual Inspection** – Bulk storage tanks
- Inspection forms must be retained for at least three years.





Spill Prevention and Control

Inspections

- Inspections consist of a complete walk through of the tank/container/equipment area to identify:
 - Damage or leakage.
 - Stained or discolored ground surfaces.
 - Security problems.





Spill Prevention and Control

Integrity Testing

- Performed by a certified tank inspector when:
 - Repairs or alterations are made to a tank.
 - Evidence of a leak is detected.
 - Results of a formal tank inspection reveals evidence of leakage or deterioration.





Spill Prevention and Control

Secondary Containment

All oil storage tanks/containers/drums must be located in properly sized² containment, sufficiently impervious to contain oil.



DOUBLEWALLED TANK



CONTAINMENT WALL/CURB



RUPTURE BASIN



CONTAINMENT PALLET

²Sufficient for the entire capacity of the largest container and have sufficient freeboard to contain an additional 10% volume.





Spill Prevention and Control

Secondary Containment

- Water accumulated within secondary containment areas is inspected for the presence of a sheen or petroleum odor.
- If contaminated, use oil sorbent materials for small accumulations or contact the Environmental Safety Division.






Spill Prevention and Control

Secondary Containment

- Document removal using the **Fluid Removal Record** [Appendix B].



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Spill Prevention, Control, and Countermeasure Plan
June 2018

Fluid Removal Record

REMOVAL OF FLUID MUST BE IN ACCORDANCE WITH SECTION 3.2 OF THIS SPCC PLAN		
Operator	Date	Time
Telephone Number	Accumulated Fluid	
Approximate Volume of Fluid	<input type="checkbox"/> Oil <input type="checkbox"/> Water <input type="checkbox"/> Other (Specify) _____	
Source of Accumulated Fluid		
Appearance of Fluid Prior to Removal (Color, Sheen, Etc.)		
Action Taken Prior to Removal of Oil		
Describe Any Wastes Generated (Volume, Disposal, Etc.)		
Comments		





Spill Prevention and Control

Secondary Containment

- Secondary containment is NOT required for qualified Oil-Filled Operational Equipment such as transformers, elevators, and lifts. However, SPCC rules require a Contingency Plan³ must be in place [Appendix H].

³*Contingency Plan focuses on the actions taken AFTER a spill has occurred.*





Spill Countermeasures

What if there is a spill?

- SAFETY COMES FIRST! - Call 911 immediately if anyone is injured or if there is a potential for fire.
- Extinguish any source of ignition.
- Warn others and isolate the area.
- Determine the source of the release.
- If the quantity exceeds your abilities for containment, please call the Environmental Safety Division 706-583-0449.





Spill Countermeasures

Procedures for handling Incidental and Emergency spills (for containment only)

What if there is an INCIDENTAL spill?

- Incidental Spill - Defined
 - Manageable spill that poses low risk to safety.
 - Not likely to adversely impact the environment.
 - Typically < 5 gallons. (Within the scope of the UGA Spill Response Team.)





Spill Countermeasures

What if there is an INCIDENTAL spill?

- Incidental Spill – Actions
 1. First, ensure your own personal safety!
 2. Attempt to stop the release at its source (i.e., close valves, upright drums, etc.).
 3. Contain/prevent the spill from spreading using spill response materials located on campus. *Refer to SPCC Plan for nearest spill kit location on campus.*

Continued...





Spill Countermeasures

What if there is an INCIDENTAL spill?

- Incidental Spill – Actions *(continued)*
 4. Document Spill using Oil Spill Report [Appendix B].
 5. Notify Environmental Safety Division 706-583-0449.





Spill Countermeasures

Oil Spill Report – Incidental Spill

OIL SPILL REPORT			
REPORT MUST BE COMPLETED IN ITS ENTIRETY			
Name of Person Reporting Spill <i>Joe Bloggs</i>		Telephone Number <i>706-555-1234</i>	
Date of Spill <i>5/2/12</i>	Time of Spill <i>10:15 am</i>	Date of Report <i>5/2/12</i>	Time of Report <i>2:30 pm</i>
Location of Spill <i>Engine Room</i>		Type of Oil Spilled <i>Diesel</i>	
Estimated Volume <i>2 gallons</i>			
Has Spill Breached Secondary Containment Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Has Oil Entered A Storm Sewer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Source of Spill <input type="checkbox"/> Storage Tank <input type="checkbox"/> Tank Truck in Product Transfer Area <input checked="" type="checkbox"/> Ancillary Equipment (specify) <i>Fuel piping</i>		Affected Medium <input type="checkbox"/> Soil <input type="checkbox"/> Water <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other (specify) _____	
Cause of Spill <i>Leak at FOS connection at generator</i>			
Damages or Injuries Caused by Spill <i>None</i>			
Actions Being Used to Stop, Remove, and Mitigate the Effects of the Spill <i>(1) Valve closed to stop flow; (2) absorbent material and pads used to clean up spill; (3) connection tightened</i>			
Is an Evacuation of the Local Area Warranted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Individual(s) and Organizations Contacted (Note Date and Time of Notification) <i>None required</i>			
Other Pertinent Information			





Spill Countermeasures

What if there is an EMERGENCY spill?

- Emergency Spills - Defined
 - Quantity spilled is >5 gallons. (Outside scope of the UGA Spill Response Team.)
 - Has entered sanitary/storm drain or ground/surface water.
 - Cannot be stopped.
 - Poses a fire/explosion hazard.
 - Additional spill equipment is needed.





Spill Countermeasures

What if there is an **EMERGENCY** spill?

- Emergency Spills - Actions
 1. First, ensure your own personal safety!
 2. If it is safe to do so, attempt to stop the release at its source (i.e., close valves, upright drums, etc.).
 3. Take action to prevent the spill from entering storm drains or streams and to minimize the area affected by using the spill materials located on campus.

Continued...





Spill Countermeasures

What if there is a spill?

- Emergency Spills - Actions *(continued)*
 4. Contact UGA's SPCC Coordinator who will contact and coordinate with the Spill Cleanup Contractor to remediate, and/or dispose of oil impacted soils, absorbent material, and tools contaminated with oil.
 5. Document spill using Oil Spill Report [Appendix B].
 6. Notify Environmental Safety Division 706-583-0449.





Spill Countermeasures

Oil Spill Clean-up Contractor

- The University of Georgia maintains signed agreements with the following Cleanup Contractor:

Parker Young Construction

888-303-9288

- All UGA response calls will be coordinated between the designated SPCC Coordinator and ESD.





Spill Countermeasures

Spill Response Materials

- List of spill kit locations at each campus is located in **The Contingency Plan** Section 5 [Appendix H].
- Materials include absorbent pads, absorbent material, and personal safety equipment.
- Contact Environmental Safety Division for removal of spent absorbent materials.





Spill Countermeasures

Oil Spill Report – Emergency Spill

OIL SPILL REPORT			
REPORT MUST BE COMPLETED IN ITS ENTIRETY			
Name of Person Reporting Spill <i>Sammy Soe</i>		Telephone Number <i>706-555-5678</i>	
Date of Spill <i>5/2/12</i>	Time of Spill <i>10:15 am</i>	Date of Report <i>5/2/12</i>	Time of Report <i>2:30 pm</i>
Location of Spill <i>North Parking Area</i>		Type of Oil Spilled <i>Gasoline</i>	
Estimated Volume <i>30 gallons</i>			
Has Spill Breached Secondary Containment Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Has Oil Entered A Storm Sewer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Source of Spill <input type="checkbox"/> Storage Tank <input checked="" type="checkbox"/> Tank Truck in Product Transfer Area <input type="checkbox"/> Ancillary Equipment (specify) _____		Affected Medium <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Water <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other (specify) _____	
Cause of Spill <i>Product release from tank vent during delivery. Problem with overfill valve suspected.</i>			
Damages or Injuries Caused by Spill <i>Contaminated soil</i>			
Actions Being Used to Stop, Remove, and Mitigate the Effects of the Spill <i>Fuel loading terminated, spill in parking area cleaned up using on site spill kit materials.</i>			
Is an Evacuation of the Local Area Warranted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Individual(s) and Organizations Contacted (Note Date and Time of Notification) <i>5/2 3:00 pm ABC Environmental Co.; 5/2 4:00 pm ESD</i>			
Other Pertinent Information <i>5/3 ABC Environmental remediated contaminated soil 5/10 Repair of tank overfill valve</i>			



Spill Countermeasures

Typical Spill Response Material



LOOSE ABSORBENT



ABSORBENT PADS



OIL ONLY ABSORBENT BOOMS



Spill Countermeasures

Typical Spill Response Material



NON SPARKING SHOVEL



DISPOSAL BAGS



SAFETY GEAR





Spill Countermeasures

Notification Procedures in the Event of a Spill

- Environmental Safety Division (M-F 8 AM – 5 PM)

706-583-0449

- University Police (8 AM – 5 PM and after hours)

706-542-2200





Spill Countermeasures

Notification Procedures in the Event of a Spill

Environmental Safety Division will notify the following
Regulatory Agencies:

- GA Dept of Natural Resources 800-241-4113
- National Response Center 800-424-8802
- US EPA, Region IV 404-562-8700





Spill Countermeasures

What spills need to be reported?

- Discharges that cause a film, sheen or discoloration of the water or adjoining shoreline.
- Discharges that cause a sludge or an emulsion to be deposited beneath the surface of the water or upon the adjoining shorelines.
- Discharges that violate applicable water quality standards.





Spill Countermeasures

Recordkeeping Requirements

- Records related to the SPCC Plan must be maintained for no less than three years.
- Records must be available for EPA inspection.
- All records of inspections, spills, training must be kept with your SPCC Plan.





Maintaining the SPCC Plan

Environmental Safety personnel will:

- Issue departmental request for inventory changes annually.
- Review and evaluate the facility and SPCC Plan at least once every five years.
- Amend SPCC Plan if there is a change in design, operation or maintenance that affects the facility's potential to discharge petroleum.

Note: Changes made to the emergency contact list and other administrative changes need not be reviewed and certified by a Professional Engineer.





Questions and Comments

