California State University San Marcos

Spill Prevention Control and Countermeasure Plan

Prepared for:

California State University San Marcos
333 S. Twin Oaks Valley Road
Craven Hall, Suite 4700
San Marcos, California 92096-0001

Prepared by:

LaRoc Environmental

PO Box 324
Carlsbad, CA 92018
Phone: (760) 533-1875

WEST COAST CIVIL

10650 Treena Street Suite 104
San Diego, CA 92131
Phone: (858) 869-1332

Updated December 2022

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OWNER AND OPERATOR

Facility Name:	California State University San Marcos (CSUSM)
Facility Location:	333 S. Twin Oaks Valley Road San Marcos, California 92096-0001
Facility Owner/Operator:	California State University
Name and Address of Owner:	Trustees of the California State University 401 Golden Shore Long Beach, CA 90802
Type of Facility:	Founded in 1989, California State University San Marcos opened its doors to students in the fall of 1990. It is the first of a new generation of Cal State Universities. CSUSM is a 304-acre suburban campus which is located approximately 30-miles north of San Diego. As of April 2020, the student body population, which includes students, faculty, staff, visiting scholars, researchers and facility visitors, is approximately 17,500. CSUSM is fully accredited by the Western Association of Schools and Colleges.
Date of Initial Operation:	September 1990
Site Safety Officer (Designated Person Accountable for Safety, Mitigation, Emergency Response and Environmental Reporting. Oil Spill Prevention at the Facility) [112.7(e)(10)(ii)]:	Regina Frasca Director, Safety, Health & Sustainability Services (760) 750-4502 (Office)
24-hour Phone Emergency Contact:	University Police (760) 750-4567
Designated Person Accountable for Oil Spill Prevention and Response at the Facility [112.7(e)(10)(ii)]:	Floyd Dudley Director, Facility Services (760) 750-4600 (Office)

MANAGEMENT APPROVAL [112.7]

This Spill Prevention Control and Countermeasures (SPCC) Plan is prepared in accordance with good engineering practices and has the full approval of management at the level with authority to commit the necessary resources. This SPCC Plan will be reviewed and evaluated at least once every five years, as required by the Code of Federal Regulations, 40CFR112.5(b). As required by 40CFR112.5(a), this SPCC Plan will be amended whenever there is a change in campus design, construction, operation, or maintenance which materially affects the campus' potential for discharge of petroleum products as described in 40CFR112.1(b). This SPCC plan adheres to the requirements set forth by the California Aboveground Petroleum Storage Act (APSA).

Regina Frasca
Director of Safety, Health & Sustainability Services

Date

PROFESSIONAL ENGINEER'S CERTIFICATION [112.3(D)]

This Spill Prevention Control and Countermeasures (SPCC) Plan is prepared in accordance with good engineering practices and has the full approval of management at the level with authority to commit the necessary resources. This SPCC Plan will be reviewed and evaluated at least once every five years, as required by the Code of Federal Regulations, 40 CFR 112.5(b). As required by 40 CFR 112.5(a), this SPCC Plan will be amended whenever there is a change in campus design, construction, operation, or maintenance which materially affects the campus' potential for discharge of petroleum products as described in 40 CFR 112.1(b). This SPCC plan adheres to the requirements set forth by the California Aboveground Petroleum Storage Act (APSA).

5/1/2022
Date

Kyle McCarty, PE
California Registered Professional Engineer #C71510

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CONTENTS

FIGURES

TABLES

APPENDICES

1.0 REGULATORY CROSS REFERENCE TABLE

Table 1.1: Onshore Non-Production Related Facility: Regulatory Cross Reference

Citation	Description	Page
§112.3(d)(1)	Professional Engineer Certification	iii
§112.3(e)	Location of SPCC Plan	5
§112.4	Discharge Notification	Appendix E
§112.5(b)	Management of Five-Year Review	27
§112.5(a) and (c)	Technical Amendments and PE Certification	Appendix B
§112.7	Management Approval	ii
§112.7	Regulatory Cross Reference	5-Apr
§112.7(a)(1)	Discussion of Conformance with 112.7	17
§112.7(a)(2)	Discussion of Non-Conformance	N/A
§112.7(a)(3)	General Facility Information and Diagrams	5-6, Appendix G
§112.7(a)(3)(i)	Description of Each Fixed Container and Oil Capacity	7
§112.7(a)(3)(ii)	Discharge Prevention Measures	17
§112.7(a)(3)(iii)	Drainage Controls	10-Sep
§112.7(a)(3)(iv)	Countermeasures for Discharge Discovery, Response, and Cleanup	Appendix F
§112.7(a)(3)(v)	Methods of Disposal of Recovered Material	Appendix F
§112.7(a)(3)(vi)	Contact List and Phone Numbers for Spill Response and Agencies	Appendix F, page F-2
§112.7(a)(4) and (5)	Procedures for Reporting a Discharge	Appendix F
§112.7(b)	Prediction of Flow Rate and Amount for Facilities	10-Sep
§112.7(c)	General Secondary Containment	17, 24
§112.7(d)(i)	Oil Spill Contingency Plan	Appendix F
§112.7(d)(ii)	Written Commitment of Manpower and Materials	Appendix F
§112.7(e)	Inspections, Tests, and Records	20
§112.7(f)	Employee Training and Discharge Prevention Procedures	24
§112.7(g)	Security (excluding oil production facilities)	23
§112.7(h)	Loading/Unloading (excluding offshore facilities)	22 and 24
§112.7(i)	Brittle Fracture Evaluation Requirements	20
§112.7(j)	Conformance with State Requirements	Appendix C
§112.7(k)	Qualified Oil-Filled Operational Equipment	N/A
§112.8(a)	Conformance with 112.7 and 112.8	17
§112.8(b)(1)	Drainage from Diked Storage Areas	18
§112.8(b)(2)	Use of Valves for Diked Storage Areas	18
§112.8(b)(3) and (4)	Drainage from Un-Diked Areas	18
§112.8(b)(5)	Treatment of Drainage Waters	18
§112.8(c)(1)	Bulk Storage Containers – Compatibility	19
§112.8(c)(2)	Bulk Storage Containers – Secondary Containment	19, Appendix G
§112.8(c)(3)	Secondary Containment – Drainage of Rainwater	18

Citation	Description	Page
§112.8(c)(4)	Bulk Storage Containers – Corrosion Protection for Buried Tanks	19
§112.8(c)(5)	Bulk Storage Containers – Corrosion Protection for Partially Buried Tanks	19
§112.8(c)(6)	Bulk Storage Containers – Integrity Testing	20
§112.8(c)(7)	Bulk Storage Containers – Leakage from Internal Heating Coils	20
§112.8(c)(8)	Bulk Storage Containers – Overflow Protection Devices	20
§112.8(c)(9)	Effluent Treatment Facilities	N/A
§112.8(c)(10)	Bulk Storage Containers – Leaks and Discharges to Diked Areas	20
§112.8(c)(11)	Mobile or Portable Containers	20
§112.8(d)	Facility Transfer Operations	21

GENERAL

This SPCC Plan has been prepared to conform to the Code of Federal Regulations, Title 40, Part 112, as revised and effective November 10, 2011 and the California Aboveground Petroleum Storage Act as codified in Section 25270 of the California Health and Safety Code. A complete copy of this SPCC Plan will be maintained at the Safety, Health & Sustainability (SH&S) Services office, since the facility is normally attended at least four hours per day.

1.1 Facility and Storage Locations

California State University, San Marcos (CSUSM) is located at 333 S. Twin Oaks Valley Road. The campus is located within city limits of San Marcos and is in San Diego County. Figure 2.1 depicts the general site location of the campus facility. Figure 2.2 shows the overall campus layout with geographical data. SPCC site plans under Appendix H illustrate the layout and areas where the aboveground storage tanks (ASTs) located throughout campus.

1.2 Facility Operations

Founded in 1989, CSUSM opened its doors to students in the fall of 1990. It is the first of a new generation of Cal State Universities. CSUSM is a 304-acre suburban campus which is located approximately 30-miles north of San Diego. As of April 2022, the student body population, which includes students, faculty, staff, visiting scholars, researchers and facility visitors, is approximately 17,500. CSUSM is fully accredited by the Western Association of Schools and Colleges.

CSUSM has 12 stationary ASTs, which exist for the purpose of storing diesel fuel for emergency power generators at the following locations (see Appendix H):

1. Building 1-Craven Hall
2. Building 3-Science Hall 1
3. Building 13-Markstein Hall
4. Building 15-University Hall
5. Building 17-Kellogg Library
6. Building25-University Student Union (USU)
7. Buildings 26/27-Arts/31 SBSB
8. Buildings 37/21-Science Hall 2/SHCS
9. Building 41-USB
10. Building 63-PSB
11. Building 902 Extended Learning Building
12. Building 43 Utilities Plant

Of the 12 stationary ASTs, nine (13-Markstein Hall, 15-University Hall, 17-Kellogg Library, 25-USU, 26/27-Arts/31 SBSB, 37-Science Hall 2, 41-USB and 63-PSB, 43-Utilities Plant) are located directly underneath their emergency power generators and include built-in secondary containment. The two remaining ASTs (Buildings 1-Craven Hall, 3-Science Hall 1) are installed as separate, standalone ASTs, with external piping to their respective generator units. Building 1-Craven Hall AST utilizes a double-walled tank, while Building 3-Science Hall 1 AST is housed in a secondary container. Diesel fuel is delivered to the campus by tanker truck approximately once per year. Additional fuel may be delivered to the campus, as needed. In addition, AT&T owns, operates, and maintains an emergency generator and a stationary AST on the campus between parking lots B and C (see Appendix I).

Figure 1.1: Vicinity Map

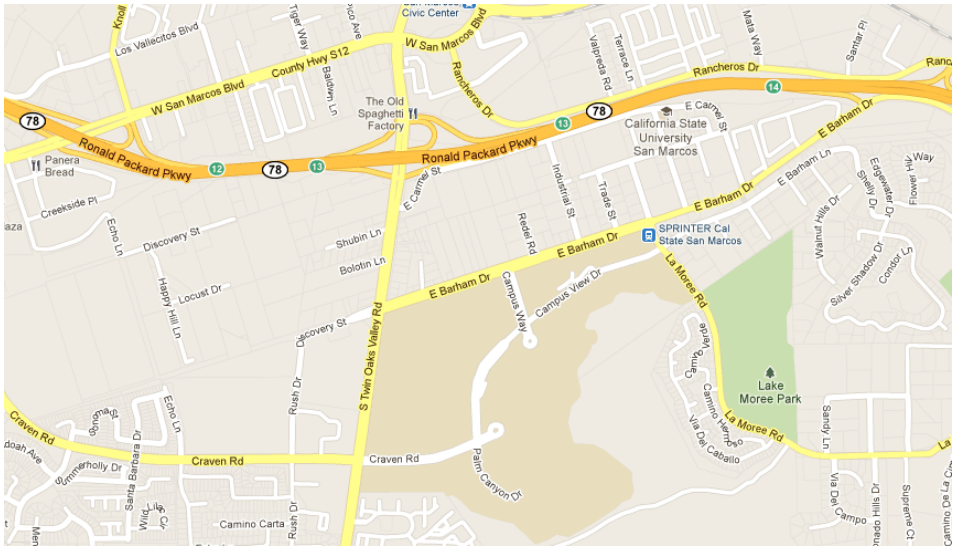

Figure 1.2: Site Location

2.0 OIL AND FUEL INVENTORY

Table 3.1 shows the types of oil, fuel and petroleum product storage tanks and containers maintained at the facility.

Table 2.1: Storage Tank and Container Information

AST Name	Permit No.	Serial No.	Date Installed	Capacity (gallons)	Product and Function	Tank Material	Tank Type
Building 1 Craven Hall AST	973112	N600305	05/2003	550	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 3 Science Hall 1 AST	973111	717374	09/1993	336	Diesel- Power Electric Generator	Carbon Steel	Single-wall Welded Steel Tank w/ External Secondary Containment Structure
Building 13 Markstein Hall AST	982825	25981	09/2005	450	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 15 University Hall AST	971738	13413	10/1997	240	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 17 Kellogg Library AST	979288	K-13965	09/2002	204	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 25 USU AST	002509	D-858,285	01/2014	380	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 26/27 Arts/31 SBSB AST	977345	R47C797	05/2010	500	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 37/21 Science Hall 2/SHCS AST	977344	44712	04/2002	410	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 41 USB AST	975225	K-14598	07/2000	130	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 63 PSB AST	000746	47712	01/2011	1,400	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 902 Extended Learning Building AST	005556 (Pending)	33cfGC0007	**06**/2019	472	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded
Building 43 Utilities Plant	Issued in 2022	600REOZVB		3,052	Diesel- Power Electric Generator	Inner and Outer Tank - Carbon Steel	Inner and Outer Tank - Welded

The tanks and containers summarized in Table 3.1 represent a maximum capacity of approximately 8,124 gallons. Oil and fuel containers with a capacity less than the volume of 55 gallons are not considered in this SPCC Plan per 40CFR112.1(d)(2)(ii). This inventory also does

not include compressed gas petroleum products such as propane or compressed natural gas. No petroleum filled underground storage tanks (USTs) are located at the facility.

3.0 SPILL HISTORY

Table 4.1 lists the spills that have occurred within the last 12 months.

Table 3.1: Spill History

Location/ Date/Time	Type and Amount	Cause	Affected Watercourse	Damages and Cost of Damages	Clean up Cost	Corrective Action

No reportable spills of oil, fuel, or petroleum product have occurred at the facility within the last 12 months. Further, no spills of oil, fuel or petroleum products have occurred since the inception of the campus.

4.0 POTENTIAL FOR SPILLS [112.7(B)]

In the event of a spill, a primary objective of designated personnel and response agencies will be to prevent the discharge of spilled oils, fuels or petroleum products into “navigable waters.” The United States Environmental Protection Agency (EPA) defines “navigable waters” very broadly to include almost all surface waters, including intermittent water courses.

The potential for spills to reach surface waters is primarily dependent upon the:

1. Area topography,
2. Spill volume,
3. Loss rate of the spill/leak from the unit/hose/source,
4. Location of spill relative to surface waters, and
5. Presence of engineered spill controls.

The site generally slopes in a northerly direction towards San Marcos Creek, immediately adjacent to the campus, which ultimately discharges into Lake San Marcos. The most southern property boundary of the San Marcos campus is approximately 2,100 feet south of San Marcos Creek. Curbing surrounds the entire facility for stormwater drainage, which collects and discharges into the municipal storm sewer.

Activities or accidents that could cause oil to be spilled at the facility include:

1. Storage tank leak or failure,
2. Tank overfill or a failure loading of the ASTs, or
3. A rupture of a compartment on a tanker truck during loading.

Table 5.1 describes possible spill scenarios, the maximum spill quantities and flow rates that may result, and the controls in place to contain the spills. Buildings and site layouts, as referenced herein, are provided in Appendix H.

Table 4.1: Predicted Spill Scenarios and Controls

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
AST leak or failure				
Building 1 Craven Hall AST	Rupture or leakage	500	250[a]	Product release from a leak or rupture of the primary containment would be entirely contained by the secondary containment with an estimated capacity of 819 gallons.
Building 3 Science Hall 1 AST	Rupture or leakage	336	168[a]	Product release from a leak or rupture of the primary containment would be entirely contained by the secondary containment with an estimated capacity of 436 gallons.
Building 17 Kellogg Library AST	Rupture or leakage	204	102[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 308 gallons.
Building 25 USU AST	Rupture or leakage	380	190[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 507 gallons.
Building 26/27 Arts/31 SBSB AST	Rupture or leakage	500	250[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 709 gallons.
37/21-Science Hall 2/SHCS	Rupture or leakage	410	205[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 720 gallons.
Building 41 USB AST	Rupture or leakage	221	110[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 314 gallons.
Building 63 PSB AST	Rupture or leakage	1,460	730[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 2,095 gallons.
Building 17 Kellogg Library AST	Rupture or leakage	204	102[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 308 gallons.
Building 25 USU AST	Rupture or leakage	380	190[a]	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 507 gallons.
Building 902 ELB AST	Rupture or leakage	472	237a	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 1832.
Building 43 Utilities Plant	Rupture or leakage	3052	1526a	Product release from a leak or rupture of the AST would be entirely contained by the secondary containment with an estimated capacity of 1832
AST loading from tanker truck				
Tanker Truck Loading of Building 1 Craven AST	AST Overfill	91[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow northwestward down the surface pavement toward a storm drain located on the curb approximately 130 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
Tanker Truck Loading of Building 3 Science Hall 1 AST	AST Overfill	55[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow northeastward and southwestward over towards a concrete floor connected to a sewer lateral located approximately 15 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 13 Markstein Hall AST	AST Overfill	83[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow westward over surface pavement and into a storm drain located approximately 120 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 15 University Hall AST	AST Overfill	40[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow eastward over surface pavement and into a floor drain located approximately 5 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.
Tanker Truck Loading of Building 17Kellogg Library AST	AST Overfill	34[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow westward down the surface pavement toward a storm drain located on the curb approximately 140 feet away. The predicted flow is shown in Figure 2 of 5.
Tanker Truck Loading of Building 17 Kellogg Library AST	AST Overfill	34[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow westward down the surface pavement toward a storm drain located on the curb approximately 140 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.
Tanker Truck Loading of Building 25 University Student Union AST	AST Overfill	34[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow across concrete directly into a floor drain connected to an oil/water separator connected to the municipal sewer system located within the protective structure, approximately 2 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
Tanker Truck Loading of Building 43 Utilities Plant AST	AST Overfill	3052[b]	509[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow northwestward down the surface pavement towards Lot C, then upper Lot B, then to a storm drain located on the curb approximately 500 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 26/27 Arts 31 SBSB AST	AST Overfill	83[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow southeast over the surface pavement and into a storm drain located on the curb approximately 30 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 37/21-Science Hall 2/SHCS AST	AST Overfill	41[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow northwestward over landscaping towards a storm drain located on the curb approximately 340 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 41 AST	AST Overfill	40[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow westward over landscaping toward a drainage ditch located approximately 20 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 63 PSB AST	AST Overfill	83[b]	100[c]	An over-pressured hose (due to a full AST) would trigger an automatic shutoff of the truck's fuel pump. A loss of pressure (due to the hose accidentally uncoupling from the AST) would require the truck operator to manually shut off the pump. If a spill were to occur, spilled diesel would flow westward over asphalt toward a drainage ditch located approximately 380 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 1 Craven Hall AST	Hose failure	91[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot driveway south-west of the AST. If a spill were to occur, spilled diesel would flow northwestward down the surface pavement toward a storm drain located on the curb approximately 130 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.

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Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
Tanker Truck Loading of Building 3Science Hall 1 AST	Hose failure	55[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot southwest of the AST. If a spill were to occur, spilled diesel would generally flow southwestward over the surface pavement and into floor drains located along the hose route. If the hose rupture was located close to the tanker truck, spilled diesel would flow northwestward over surface pavement into a storm drain in the adjacent parking lot approximately 130 feet away. If the hose rupture was located close to the AST, spilled diesel would flow eastward over surface pavement into a floor drain connected to a sewer lateral approximately 15 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 13 Markstein Hall AST	Hose failure	83[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked adjacent to the AST enclosure area within the back access roadway. If the hose rupture was located close to the AST, spilled diesel would flow westward over surface pavement and into a storm drain located approximately 120 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 15 University Hall AST	Hose failure	40[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot northeast of the AST. If the hose rupture was located close to the AST, spilled diesel spilled diesel would flow eastward over surface pavement and into a floor drain located approximately 5 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.
Tanker Truck Loading of Building 17 Kellogg Library AST	Hose failure	34[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot just west of the AST. If a spill were to occur, spilled diesel would flow westward down the surface pavement toward a storm drain located on the curb approximately 140 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.
Tanker Truck Loading of Building 25 University Student Union AST	Hose failure	34[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the building's service/loading bay, just east of the AST. If a spill were to occur, spilled diesel would flow southward down the surface pavement toward a storm drain located at the end of the loading bay approximately 70 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 26/27 Arts 31 SBSB AST	Hose failure	83[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the overflow parking lot just south of the AST. If a spill were to occur, spilled diesel would flow southeast over the surface pavement and into a storm drain located on the curb approximately 30 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
Tanker Truck Loading of Building 37/21-Science Hall 2/SHCS AST	Hose failure	41[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in a loading area southeast of the AST. If a spill were to occur close to where the truck was parked, spilled diesel would flow northward over landscaping and then across a paved surface toward a storm drain located approximately 340 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 41 USBAST	Hose failure	40[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot just north of the AST. If a spill were to occur, spilled diesel would flow westward over landscaping toward a drainage ditch located approximately 20 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 63 PSBAST	Hose failure	83[b]	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot just north of the AST. If a spill were to occur, spilled diesel would flow westward over asphalt toward a drainage ditch located approximately 380 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 43 Utilities Plant	Hose Failure	???	100[c]	A loss of pressure (due to a leak in the hose) would require the truck operator to manually shut off the pump. During AST loading, the tanker truck would be parked in the parking lot just west of the AST. If a spill were to occur, spilled diesel would flow north-westward over asphalt toward a storm drain located approximately 500 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 1 Craven Hall AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot driveway southwest of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow northwestward down the surface pavement toward a storm drain located on the curb approximately 130 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 3Science Hall 1 AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot driveway southwest of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow eastward over surface pavement down the surface pavement toward a storm drain located on the curb approximately 130 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 13Markstein Hall AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot southwest of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow westward over surface pavement and into a storm drain located approximately 120 feet away. The predicted flow is shown on SPCC Site Plan 1 of 5.
Tanker Truck Loading of Building 15 University Hall AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot northeast of the AST. If a tanker truck compartment rupture occurs, spilled diesel spilled diesel would flow eastward over surface pavement and into a floor drain located approximately 5 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway
Tanker Truck Loading of Building 17 Kellogg Library AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot just west of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow westward down the surface pavement toward a storm drain located on the curb approximately 140 feet away. The predicted flow is shown on SPCC Site Plan 2 of 5.
Tanker Truck Loading of Building 25 University Student Union AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the building's service/loading bay, just east of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow southward down the surface pavement toward a storm drain located at the end of the loading bay approximately 70 feet away. The predicted flow is show on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 26/27 Arts 31 SBSB AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the overflow parking lot just south of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow southeast over the surface pavement and into a storm drain located on the curb approximately 30 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 37/21-Science Hall 2/SHCS AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot south of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow northward over landscaping and then across a paved surface toward a storm drain located approximately 340 feet away. The predicted flow is shown on SPCC Site Plan 3 of 5.
Tanker Truck Loading of Building 41 USB AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot just north of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow westward over landscaping toward a drainage ditch located approximately 20 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 63 PSB AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot just north of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow westward over asphalt toward a drainage ditch located approximately 380 feet away. The predicted flow is shown on SPCC Site Plan 4 of 5.
Tanker Truck Loading of Building 902 ELB AST	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot just west of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow easterly in the parking lot and into the onsite storm water treatment system. The predicted flow is shown on SPCC Site Plan 5 of 5.
Tanker Truck Loading of Building 43 Utilities Plant	Tanker truck compartment rupture	5,500[d]	2,750[a]	During AST loading, the tanker truck would be parked in the parking lot just west of the AST. If a tanker truck compartment rupture occurs, spilled diesel would flow easterly in the parking lot and into the onsite storm water treatment system. The predicted flow is shown on SPCC Site Plan 5 of 5.

Tank or Container	Type of Failure	Capacity (gallons)	Maximum Probably Spill Rate (gpm)	Control and Flow Pathway

(a) The time for a ruptured storage tank to completely empty is indeterminate. For purposes of calculating the maximum probable spill rate, it is assumed that a ruptured storage tank will drain completely in two minutes.

(b) This volume represents the probable spill volume after 20 seconds (the expected time it would take an operator to engage the emergency shut-off pump switch) at the given spill rate.

(c) This spill rate represents the unloading pump rate.

(d) This capacity represents the maximum likely volume of a tanker truck compartment that typically loads petroleum products at t he facility.

5.0 DEMONSTRATION OF IMPRACTICABILITY [112.7(D)]

CSUSM has determined that the use of containment and/or diversionary structures or readily available equipment to prevent discharge petroleum products from reaching navigable waters is practical and effective at this facility except for the tanker truck areas. This is addressed in Section 7.5

6.0 SPILL PREVENTION AND CONTAINMENT PROCEDURES [112.7(A)(2)]

One of the most frequent causes of spills is due to the improper transfer of oil or petroleum products. Observance of the standard operating procedures described in this section will minimize the potential for spills to occur during petroleum product transfer. A proper monitoring and inspection program minimize the potential for spills to occur due to physical failure of ASTs and equipment. Adequate facility security minimizes the potential for vandalism and increases the probability of rapid detection in the event that a spill does occur. A high percentage of discharges are caused by operator error, therefore, training and briefings of employees that handle oil products will help prevent discharges and promote a safer facility.

6.1 Containment, Diversionary Structure, or Equipment [112.7(c)]

Containment facilities located at the following AST locations include double-walled containment (e.g., an outer tank provides a secondary containment for the inner or primary tank):

- Building 1-Craven Hall
- Building 13-Markstein Hall
- Building 15-University Hall
- Building 17-Kellogg Library
- Building 25-USU
- Building 26/27-Arts/31 SBSB
- Building 37/21-Science Hall 2/SHCS
- Building41-USB
- Building 63-PSB
- Building 902-ELB
- Building 43-Utilities Plant

The capacity of each of the inner tank is identified in Table 3.1, and secondary containment details are provided in Appendix G.

Building 3-Science Hall 1 AST utilizes a single-walled container, which is housed in a secondary containment “tub” that measures 80” x 55” x 43”. The volume of the secondary containment at this location is 436 gallons, which is 100 gallons (or 29%) greater than the rated fuel capacity of 336 gallons.

6.2 Facility Drainage [112.8(b)]

Drainage from Diked Containment Areas [112.8(b)(1) and (c)(3)]

The AST at Building 3-Science Hall 1 is provided with external secondary containment. The containment is covered which minimizes the accumulation of rainwater. All other ASTs are double-walled and do not have associated diked or bermed areas. However, water may accumulate in the interstitial space between the primary and secondary wall.

Drainage of uncontaminated storm water from the secondary containment or interstitial spaces in the double walled tanks into a storm drain or into an open watercourse, lake or pond is not allowed unless:

- The bypass valve is normally sealed closed;
- The retained storm water is inspected to ensure that a sheen or discoloration is not present;
- The bypass valve is opened, then resealed following draining under responsible supervision; and
- Adequate records are kept of the drainage events (i.e., records required under a National Pollutant Discharge Elimination System permit).

Drainage from Diked Containment Areas [112.8(b)(2)]

Valves of an open and closed design will be utilized on the secondary containment for the drainage of accumulated fluids at the AST at Building 3. No other AST are provided with external secondary containment.

Drainage from Un-diked Containment Areas [112.8(b)(3)]

ASTs in use at this facility are provided with secondary containment in the form of double-walled tanks or with secondary containment basins located within an enclosed space. During filling, tanker trucks are provided with active secondary containment (e.g., supervised loading, available spill kits, etc.), such that a release would be discovered and stopped prior to an offsite discharge.

Design facility drainage systems from un-diked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

Spill Diversion System [112.8(b)(4)]

N/A - Secondary containment for each AST appears to be properly sufficiently engineered such that an additional spill diversion is not necessary to prevent discharges to navigable waters.

Continuous Treatment of Drainage Waters [112.8(b)(5)]

N/A - This section does not apply as drainage waters at the CSUSM facility are not pumped and/or transferred into a continuous treatment unit.

6.3 Bulk Storage Tanks [112.8(c)]

Tank Materials [112.8(c)(1)]

Each AST is comprised of a UL standard 142 (Steel Aboveground Tanks for Flammable and Combustible Liquids) primary steel tank. The tank materials and construction are compatible with stored products at the storage temperature and pressure.

Secondary Containment [112.8(c)(2)]

The secondary containment systems for ASTs are sufficiently impervious to contain spilled oil until it can be removed or treated. The following locations include ASTs with an inner tank which is fully enclosed by an outer steel tank:

- Building 26/27-Arts/31 SBSB
- Building 13-Markstein Hall
- Building 15-University Hall
- Building 17-Kellogg Library
- Building 25-USU
- Building 37/21-Science Hall 2/SHCS
- Building 41-USB
- Building 63-PSB
- Building 902-ELB
- Building 43-Utilities Plant/Central Plant

A leak in the primary vessel would be contained by the outer steel tank. Therefore, releases from these ASTs will only occur if both layers of steel fail or are punctured.

The Building 3-Science Hall 1 AST is housed in a secondary containment structure with sufficient volume to contain the entire capacity of the AST if failure or rupture were to occur. The AST (and accompanying secondary containment "tub") is located in room 3-114 of Building 3-Science Hall 1 and is covered and, therefore, not subject to precipitation. The secondary containment structure is sufficiently sealed to contain any discharged liquid.

Underground Storage Tanks [112.8(c)(4)]

N/A - There are no metallic underground storage tanks (USTs) containing hazardous materials installed at this facility.

Partially Buried Tanks [112.8(c)(5)]

N/A - No partially buried storage tanks are located at this facility.

Testing and Inspection of ASTs [112.8(c)(6)]

A qualified employee visually observes the ASTs during performance of normal duties. Any signs of deterioration or leakage that might cause a spill or accumulation of petroleum-based products (i.e., diesel fuel, oil, etc.) is reported to the Site Safety Officer. Inspection forms are included in Appendix D. Records of these inspections are maintained with SH&S in the SPCCP.

Integrity testing may help facilities determine whether corrosion has reached a point where repairs or replacement of the container is needed. Every three years, or more often when necessary based on visual inspection or monitoring results, integrity testing is performed on ASTs if visual inspections warrant further investigation. Testing of the storage tank will be conducted by qualified inspectors using manufacturer's recommended testing methods and/or industry standards. Industry standards could include the a) Steel Tank Institute Standard SP001-00, "Standard for

Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids," American Petroleum Institute Reconstruction", etc.) or b) Standard API-653, "Tank Inspection, Repair, Alteration, and Testing for checking the integrity of the AST by measuring the strength (structural soundness) of a container shell, bottom, and floor. Integrity testing may include leak testing to determine whether the container has a potential to discharge oil-based products (e.g. diesel fuel).

Internal Heating Coils [112.7(c)(7)]

N/A - CSUSM does not have ASTs with internal heating coils that discharge into an open watercourse or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

Gauging and Alarm Systems [112.8(c)(8)]

Each AST is equipped with a fuel level gauge and a primary containment leak alarm with an audible signal. Liquid level sensing devices will be regularly tested to ensure proper operation. Facilities Services Site Personnel manually gauge tanks to check product height prior to loading.

Detection and Correction of Visible Oil Leaks [112.7(c)(10)]

Visible oil leaks detected at the AST, or its seams gaskets, piping, pumps, and valves will be reported to the Site Safety Officer and will be corrected as soon as possible. Any visual accumulation of diesel within any AST secondary containment structures will be promptly removed. Routine testing of ASTs integrity will identify any potential leaks or discharges.

Mobile or Portable Tanks [112.7(c)(11)]

The campus has two California Air Resources Board permitted portable generators that are used in emergency situations only. These portable generator units are stored at the Building 41-USB maintenance yard without fuel.

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Field-Constructed Containers [112.7(i)]

N/A - No field-constructed ASTs are located on this campus.

6.4 Facility Transfer Operations, Pumping, and Facility Process [112.7(d)]

Buried Piping [112.8(d)(1) and (4)]

N/A - There is no buried piping associated with ASTs at this campus.

Out of Service Pipelines [112.8(d)(2)]

N/A - There are no out of service pipelines associated with ASTs at this campus.

Pipe Supports [112.8(d)(3)]

Building 1-Craven Hall and Building 3-Science Hall 1 ASTs are sited separate from their generator units and utilize external, aboveground piping to distribute fuel to their respective generators. Pipe

supports are properly designed to minimize abrasion and corrosion and allow for expansion and contraction at these locations.

The following ASTs are connected to an overlying generator, and the connection between each AST and generator is fully contained inside an enclosure within the footprint of the AST unit:

- Building 13-Markstein Hall
- Building 15-University Hall
- Building 25-USU
- Buildings 26/27-Arts/31 SBSB
- Buildings 37/21-Science Hall 2/SHCS
- Building 41-USB
- Building 63-PSB
- Building 902-ELB
- Building 43 Utilities Plant

Aboveground Valve and Pipe Examination [112.8(d)(4)]

Facilities Services Site Personnel conduct regular visual inspections of all aboveground valves, piping, hoses and other appurtenances. Attention is given to the general condition of equipment parts such as flange joints, expansion joints, valves, pipeline supports, locking of valves, and metal surfaces. Appendix D contains inspection guidelines and forms.

Damage by Vehicle or Equipment [112.8(d)(5)]

The majority of ASTs are placed in protected locations away from vehicular traffic. The AST located at 41-USB is stored on a concrete block adjacent to an embankment away from vehicular and pedestrian traffic. Steel bollards protect Building 1-Craven Hall AST from vehicles or equipment in the parking lot.

Concrete block walls and building structures protect the following ASTs:

- Building 3-Science Hall 1
- Building 13-Markstein Hall
- Building 15-University Hall
- Building 17-Kellogg Library
- Building 25-USU
- Buildings 26/27-Arts/31 SBSB
- Buildings 37/21-Science Hall 2/SHCS
- Building 63-PSB
- Building 902-ELB (partial)

6.5 AST Loading Operations [112.7(h)]

Tanker Truck Unloading Procedures

Commented [CS3]: Ensure Floyds team is doing this. Come for one to see how it is done

The following procedures will be followed during loading of ASTs by tanker truck:

- Tanker truck drivers must meet the requirements established by CSUSM and the United States Department of Transportation (DOT), per 40CFR117, for unloading petroleum products at this facility.

- Diesel fuel will be received between the hours of 8:00 a.m. and 5:00 p.m. (except in emergency situations). The driver will report to Facilities Services Site Personnel prior to commencing unloading operations.
- Facilities Services Site Personnel will accompany the driver during unloading. Each AST fill point will normally be kept locked. Facilities Services Site Personnel will be responsible for unlocking the AST fill point and for supervising the monitoring the level-indicating gauges on each AST.
- A spill kit including absorbent mats and pads and other clean-up materials are stored on-site within each AST tank enclosure.
- The driver will place berms around the tanker truck. The transport company will provide the berms.
- Facilities Services Site Personnel will cover storm drains as necessary to protect them from potentially being affected by spills (refer to figures under Appendix H).
- The tanker truck will be parked adjacent to each diesel tank as shown in the Figures under Appendix H. Each tanker truck will carry a spill containment kit.
- Prior to making the hose connection between the truck and the AST fill point, the driver will use a berm barrier system to chock the wheels to prevent truck movement during unloading of the tanker truck. **[112.7(h)(2)]**
- The driver will visually examine the discharge valve on the truck and delivery hose to determine they are both in good condition prior to connecting the hose to the AST.
- A drip pan will be placed under the tank valve and hose connection to catch any overflow.
- Driver must be present during fuel unloading and may not smoke anywhere on campus. CSUSM is a smoke and tobacco free campus.
- Each driver shall closely examine all truck and trailer connections and tanks for possible leaks prior to departure from the fueling area. If any connections, drains, or outlets are found to be leaking, each connection is tightened, adjusted, or replaced, as needed, to prevent liquid leakage while in transit. **[112.7(h)(3)]**

Containment of Tanker Truck Unloading Area [112.7(h)(1)]

CSUSM has determined the use of appropriate secondary containment and/or diversionary structures or readily available equipment to prevent a discharge as described in 40 CFR 112.1(b), is not practical at the tanker truck unloading areas, due to the financial burden. Appendix F presents an Oil Spill Response Plan that addresses other hazards or nuisances that may be addressed by spilled oil at the facility.

Additionally, in accordance with 40CFR112.7(d)(2), CSUSM will commit manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful to students, staff and the environment.

Warning System for Vehicles [112.7(h)(2)]

Signs shall be posted in fuel unloading areas to warn truck drivers to disconnect fueling hoses after AST loading and before departure. Facilities Services Site Personnel will be present to observe all loading events. In addition, “No Smoking” signs are posted in the area.

6.6 Inspections and Recordkeeping [112.7(e)]

Inspection guidelines forms are included in Appendix D. These forms include a Monthly Inspection Checklist and notes or and a SPCC Plan Annual Inspection Checklist. Completed copies of these forms will be kept with the SPCC Plan for a minimum of three years.

6.7 Security [112.7(g)]

Fencing

The following ASTs are fully contained and either permanently stored within locked dedicated storage room, or chain-link fence or concrete/block wall enclosures:

- Building 3-Science Hall 1
- Building 13-Markstein Hall
- Building 15-University Hall
- Building 17-Kellogg Library
- Building 25-USU
- Building 26/27-Arts/31 SBSB
- Building 37/21-Science Hall 2/SHCS
- Building 63-PSB
- Building 43-Utliities Plant

Building 1-Craven Hall, Building 41-USB, and Building 902-ELB ASTs are not located within secure or fenced areas. However, fuel valves and other moveable parts are contained within separate secure enclosures, and only authorized personnel are permitted access.

Flow Valves

As discussed above, AST flow valves are located within locked enclosures or secure rooms. Only authorized personnel will be permitted access.

Pump Starter Controls

AST pump starter controls are located within locked enclosures or secure rooms (see above). Only authorized personnel will be permitted access.

Pipeline Loading/Unloading Connections

AST loading and unloading points will be securely capped or blanked-flanged when not in service or in standby service for an extended period of time.

Facility Lighting

Lighting is sufficient to facilitate the discovery of spills during hours of darkness and to discourage vandalism in the area of the ASTs.

6.8 Personnel Training [112.7(f)]

Instructions to Personnel [112.7(f)(1)]

Personnel are instructed in the operation and maintenance of equipment to prevent oil spills in accordance with CSUSM environmental policies. Documentation of completed training is maintained with the SH&S Department.

Designated Person Accountable for Oil Spill Prevention [112.7(f)(2)]

The person designated for preventing oil spills is the Site Safety Officer.

Spill Prevention Briefings [112.7(f)(3)]

SH&S and Facilities Services will conduct briefings for new employees and at least annually for all oil or fuel-handling personnel. In addition to the training of operation and maintenance of equipment, briefings inform personnel of any recent oil spills or discharges, equipment failures, malfunctioning components, and recently developed precautionary measures.

A copy of the Spill Prevention Briefing Log is in Appendix E. The Site Safety Officer will inform contractors and maintenance personnel of the facility's oil spill prevention features when necessary.

6.9 Sorbent Materials and Spill Control Equipment [112.7(c)]

The facility shall maintain an inventory of sorbent materials (absorbent granules and absorbent pads) for collecting small leaks and spills. Spill kits shall be kept near areas where spills are likely to occur or placed on a vehicle that will accompany tanker trucks during filling operations. The spill kits shall be kept outside of the area that would be directly impacted by the spill so that access is not impeded. If a larger spill occurs, the facility will contact a contractor for construction of dikes or berms as necessary.

The basic spill kit shall consist of two 55-gallon open-top poly drums (details in Appendix F). Each kit shall include:

- One drum filled with granular absorbent (approximately two-thirds full), two short square-end spark-proof shovels and two dustpans.
- A second drum containing approximately 40 feet of absorbent socks, rubber gloves, and appropriate eye protection, as well as a copy of this SPCC Plan.
- Both drums labeled "Spill Containment Kit."
- Storm drain covers or berms.

7.0 SPILL RESPONSE AND COUNTERMEASURES

7.1 General

An effective spill prevention program, as outlined in Section 6.0 will minimize the potential for petroleum product spills. However, should a spill occur, responsible facility personnel are prepared to respond quickly and effectively to prevent a discharge of petroleum products as described in 40CFR112.1(b).

7.2 Oil Spill Response Plan

The Oil Spill Response Plan (OSRP) is included in Appendix F, and contains a contact list, phone numbers, and other information necessary for reporting a discharge. Responsible facility personnel are thoroughly familiar with the OSRP and spill kit locations.

Some facilities store so much oil on site that the facility "could reasonably be expected to cause substantial harm to the environment" (as defined by 40CFR112.20 and Appendix C of Part 112). A facility that meets the substantial harm criteria is required to prepare a detailed spill response plan called a Facility Response Plan (FRP). This facility is not required to prepare an FRF as outlined in 40CFR112.20 and 40CFR112.21. The worksheet from Appendix C of Part 112 was utilized to make this determination. A copy of the completed worksheet is included under Appendix A.

7.3 Countermeasures

Upon achieving spill containment, the spilled product will be cleaned up as quickly as possible. For large spills, clean-up methods will be approved by and coordinated with the relevant regulatory agencies if the spilled product impact soil or appears to pose a threat to human health or the environment. Residual liquid from spills will be recovered using vacuum truck and/or absorbent materials. Contaminated soil may be collected and placed into containers for shipment from the facility pending approval from local government agencies. All collected residues shipped off-site will be properly disposed of in accordance with applicable regulations. The nature of disposal will depend upon whether the residues are considered a special or hazardous waste by the United States Environmental Protection Agency or California Environmental Protection Agency.

An outside environmental consultant is retained for oversight of spill response.

8.0 SPCC PLAN AMENDMENTS

The SPCC Plan is amended as soon as practical but no later than six months after any change in facility design, construction, operation or maintenance which materially affects the potential for spills. In addition, the SPCC Plan is reviewed and evaluated at least once every five years from the date on which the Plan is fully implemented. The Plan is amended within six months after the review and evaluation to include more effective prevention and control technology if such technology will significantly reduce the likelihood of a spill occurring. A signed and dated statement is attached to the SPCC Plan upon completing a five-year review indicating whether an amendment was necessary and, if necessary, the nature of the amendment. A SPCC Plan Review form and SPCC Plan Minor Changes form are included in Appendix B. Non-technical amendments to SPCC plans do not require a Registered Professional Engineer re-certification. Currently it is not required, however it is recommended that, a Registered Professional Engineer will certify all technical amendments to this SPCC Plan.

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APPENDIX A
Certification of the Applicability of Substantial Harm Criteria

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Certification of the Applicability of Substantial Harm Criteria

Facility Name: Cal State University San Marcos

Facility Address: 333 S. Twin Oaks Valley Road, San Marcos, CA 92096

Facilities that store greater than a certain threshold of oil must prepare a Facility Response Plan (FRP) which is a detailed document that explains how to respond to a large oil spill. The intent of this form is to determine if CSUSM stores for which this SPCC Plan is written would have to prepare an FRP. If the answer to all five questions below is "No," then the facility does not have to prepare an FRP. If the answer to any question is "Yes," see chart H-1 to determine if the facility requires an FRP.

Question	Yes	No
1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?		✓
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?		✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the formula in 40CFR112 Appendix C, Attachment C-III, or a comparable formula[a]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife sensitive environments, see Appendices I, II, and II to DOC/NOAA's "Guidance for Facility and Vessel Response Environments" (40CFR112 Appendix E, Section 10, for availability or 59 Federal Register 14713-22, published March 29, 1996) and the applicable Area Contingency Plan.		✓
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula (40CFR112 Appendix C, Attachment C-III, or a comparable formula[a]) such that a discharge from the facility would shut down a public drinking water intake?[b]		✓

Certification

[a] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[b] For the purposes of 40CFR112, public drinking water intakes are analogous to public water systems as described in 40CFR143.2(c).

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Regina Frasca
Director of Safety, Health & Sustainability Services

Date

Commented [CS4]: Gina Sig

Leon Wyden
Vice President of Finance & Administrative Services (FAS)

Date

Commented [CS5]: Leon Sig

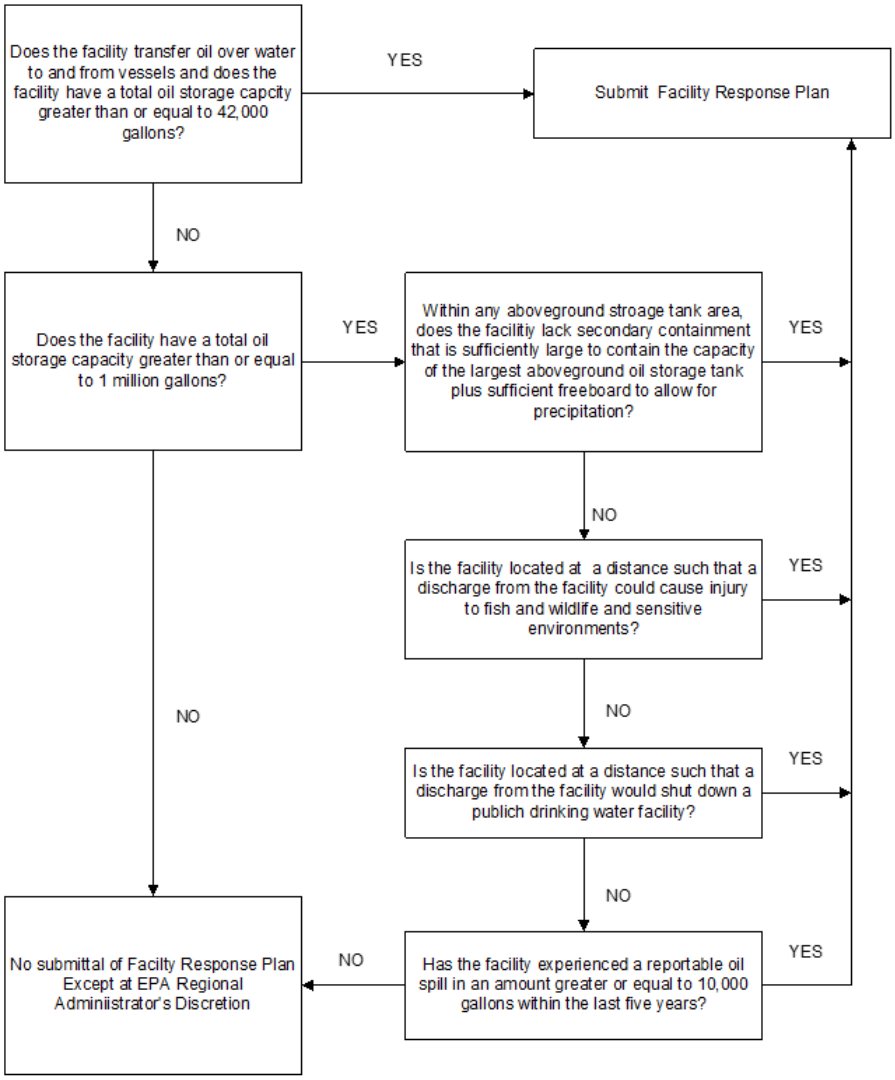

Chart A-1: Flowchart of Criteria for Substantial Harm

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APPENDIX B
SPCC Plan Review, Minor Changes, and Amendments

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Recommended Facility Improvements

Although the following are recommendations, not all are requirements as outline in 40CFR112. The following facility improvements are recommended:

1. A placard or sign that indicates no smoking allowed within 25-feet perimeter of the diesel tank should be placed on the containment building. (COMPLETE)

2. Replace deteriorating spill kit materials on a routine basis. The materials shelf life should be recorded in a database with a reminder to replace the materials regularly. (COMPLETE)

3. Signs should be posted around the AST loading areas notifying tanker truck drivers that they should remain with the vehicle or equipment during filling and that hoses should be removed before driving away. In addition, the sign should state that an employee must be present during the filling of tanks and no smoking allowed during fueling. (COMPLETE)

4. Require and check that vendors have a spill kit that accompanies the tanker truck during filling operations. Check that the spill kit should include spill booms or socks and spark-proof shovels. (COMPLETE)

5. A boom that is durable and can be placed around perimeter of the truck during fueling operations. The boom shall be placed around the truck in such a way that during tank filling any spill of petroleum products would be contained and would not drain into any catch basins and off-site.

6. Include mounted 15-pound ABC Fire Extinguishers at each AST Site.

These improvements shall be made to ensure that CSUSM complies with 40CFR112. These improvements should be implemented as soon as practicable.

SPCC Plan Review, Minor Changes, and Amendments

Minor Changes – Changes to the campus that do not materially affect the campus' potential for discharge into navigable waters will be logged below (Table B-1). The Site Safety Officer (identified on Page ii) will endorse the change.

Reviews [112.5(b)] – This SPCC Plan will be reviewed and evaluated every five years. The person responsible for this review will sign the review log (Table B-2).

Amendments [112.5(a) and (c)] – Any changes to the facility that affects the facility's potential for discharge into navigable waters will require that this SPCC Plan be amended. Examples of changes to the facility include the design, commissioning or decommissioning of containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility.

Such amendments must be fully implemented no later than six months after the change occurs. Technical amendments must be certified by a registered professional engineer. Amend the Plan by adding a page behind this one that describes the change and includes the professional certification.

Table B-1: SPCC Plan Minor Changes

Date	Comments	Signature
6/2014	Self-contained diesel generator unit installed at new Building 25-University Student Union (USU). Also revised Monthly and Annual Inspection checklists. SPCC plan updated to include this additional diesel AST to the facility, and revisions to checklists as requested by CSUSM staff.	
11/15/21	Add new generator at Central Plant to plan, add spill response plan for new generator, update maps	
8/17/2023	Update ELB generator secondary information, minor name changes	

Table B-2: Five-Year Review Log

I have completed review and evaluation of this SPCC Plan for CSUSM and, as indicated below, will or will not amend the Plan as a result.

Review Dates	Amend the Plan? (Yes/No)	Signature
October 2011	Yes Amended AST modifications/locations, site maps and addressed regulation changes.	
June 2014	Self-contained diesel generator unit installed at new Building 25-University Student Union (USU). Also revised Monthly and Annual Inspection checklists. SPCC plan updated to include this additional diesel AST to the facility, and revisions to checklists as requested by CSUSM staff.	
May 2020	Comprehensive Report Update	
October 2021	Self-contained diesel generator unit installed at new Building 25-University Student Union (USU). Also revised Monthly and Annual Inspection checklists. SPCC plan updated to include this additional diesel AST to the facility, and revisions to checklists as requested by CSUSM staff.	
October 2026		
October 2031		
October 2036		

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APPENDIX C
Discussion of Relevant SPCC Plan Regulations

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Discussion of Relevant Regulations

Facilities that store oil in California are required to comply with the Aboveground Petroleum Storage Act (APSA), as codified in Section 25270 of the California Health and Safety Code (HSC 25270-25270.13), if they store oil in quantities greater than 1,320 gallons at the facility or have tank storage capacity greater than 10,000 gallons. This requirement is based on quantity of oil, not the likelihood of a discharge to navigable waters unlike the Federal Rule. The APSA requires that the owner or operator of the tank facility to prepare and implement an SPCC plan in accordance with the U.S. Code of Federal Regulations, title 40, part 112 (40CFR112).

The program has been implemented by the RWQCB, and they collected the fees for this program. APSA transfers responsibility for this program to the local CUPA. The local CUPA is the County of San Diego, Department of Environmental Health, Hazardous Materials Division (HMD).

Table C-1 explains the California and Federal SPCC Plan requirements.

Table C-1: Relevant California and Federal SPCC Plan Requirements

Regulation	Requirement of Section
HSC 25270.3	Description that requires the owner or operator of a tank facility, with an aggregate storage capacity greater than or equal to 1,320 gallons of petroleum, to prepare and implement an SPCC plan in accordance with federal requirements 40CFR112.
HSC 25270.8	Description that each owner or operator of a tank facility shall immediately, upon discovery, notify the California Emergency Management Agency and the UPA using the appropriate 24-hour emergency number (refer to G.2), of the occurrence of a spill or other release of one barrel (42 gallons) or more of petroleum that is required to be reported.
HSC 25270.6	Description that the owner or operator of a tank facility to annually file a tank facility statement with the CUPA. The submission of a business plan satisfies the requirement to submit the tank facility statement.
HSC 25270.12	Description that any owner or operator of a tank facility who fails to prepare a spill prevention control and countermeasure plan in compliance with subdivision may be penalized for violations.
40CFR112.5(b)	Description that A SPCC plan must be reviewed every five years.
None	Include a written description of any oil spills that have occurred within that last 12 months.
40CFR112.7(a)(2)	Description of deviations from certain requirements of the regulation (does not include secondary containment requirements) must state nonconformance and alternate methods.
40CFR112.7(a)(3)	Description that the physical layout of the facility and include a facility diagram (locate each storage container).

Regulation	Requirement of Section
40CFR112.7(b)	Description of reasonable potential of equipment failure, predict the direction and size of an oil spill.
40CFR112.7(c)	Description of containment or diversionary structures or equipment.
40CFR112.7(d)	What to do if it is not practicable to install secondary containment structures or equipment listed in the regulation.
40CFR112.7(e)	Description of inspections, tests, and recordkeeping procedures.
40CFR112.7(f)	Description of personnel training, maintenance equipment to prevent discharges and discharge prevention procedures.
40CFR112.7(g)	Description of facility security of storage areas and prevent unauthorized access to controls (including lighting), prevent vandalism.
40CFR112.7(h)	Description of oil tanker truck unloading.
40CFR112.8(b)	Description of procedures and systems to control drainage from the site and from bermed and diked secondary containment areas.
40CFR112.8(c)	Description of bulk storage containers using compatible storage materials.
40CFR112.8(d)	Description of facility transfer operations, pumping, and in-plant process. Inspect piping for deterioration or corrosion damage undertake corrective action as indicated by the magnitude of the damage.

APPENDIX D
Inspection Guidelines and Forms

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Inspection Guidelines and Forms

The Site Safety Officer, or individual designated at the facility, who is responsible for oil spill prevention (or a designated representative) shall include in the inspection a physical tour of the site. Tanks, fuel transfer equipment, drums, structures, and the immediate surrounding areas are to be included in the inspection to detect any indication of petroleum product spillage. The facility shall be surveyed to discover conditions, if any, which indicate problems that could contribute to a hydrocarbon spill.

The inspection is to be visual, generally concentrating on what can be observed on a "walk-through" basis. It is appropriate to include the inspection with other activities performed by assigned personnel when they are in the tank storage area or at product transfer areas.

The following areas or equipment are to be inspected for leakage, evidence of deterioration or corrosion, or indication of possible future failure:

- AST tanks and associated piping
- Emergency generator and associated fuel piping
- Pumps, nozzles and hoses on tanker trucks delivering diesel fuel
- Dikes, berms, and drains on facility downstream of petroleum product storage
- Automatic controls

The perimeter of the campus shall be inspected when assigned personnel are in the area. Other drainage systems or structures such as ditches or gutters shall also be included in the inspection.

Attention should be directed to emergency shutdown, tank monitoring equipment, and communication systems to verify proper operation capabilities.

Problems are to be reported to the Site Safety Officer (identified on Page ii). Corrective action must be taken as soon as possible.

Records of problems and corrective action taken will be kept in the SPCC Plan records for a minimum of three years and must be kept at the site for the lifetime of the campus.

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Facility Monthly Inspection Checklist

Building: _____ Inspected by: _____

Date Inspected: _____

This report is intended to comply with SPCC inspection requirements and applies only to equipment in service.

Area	Satisfactory	Needs Attention	Date Completed	Comments
Fuel Loading/Unloading Area				
1. All metering equipment and controls are operational and in good condition.				
2. The drive slabs and berms at the fueling area are in good condition.				
All ASTs				
1. Each AST has been visually inspected for: • Significant corrosion • Leakage • Damage				
2. Each AST tank foundation is in good condition.				
3. "No Smoking" signs in place.				
4. Spill kits stocked and in good condition.				
5. All manual tank valves are: • In good condition • Free from leakage • Secured closed except when in use				
6. All automatic tank valves: • Operate as described in the plan • Are free from leakage Are normally closed except when in use				

Area	Satisfactory	Needs Attention	Date Completed	Comments
7. ASTs are secure from unauthorized access and enclosures in good condition.				

Area	Satisfactory	Needs Attention	Date Completed	Comments
Aboveground Storage Tanks				
1. Area valves, flanges, pumps, hoses, and gauges free of signs of leakage?				
2. Is leakage into secondary containment detected?				
3. Are AST audible alarms working properly?				
4. Is monitoring equipment operational?				
5. Are AST access points securely locked when not in use?				
6. Are pump controls operating properly?				
7. Are pump controls securely locked when not in use?				
8. Are Emergency Generator Enclosures, fences and doors securely locked to prevent unauthorized access?				

Completed copies of this form shall be kept with the SPCC Plan for a minimum of three years and must be kept at the site for the lifetime of the campus.

Building: _____ Inspected by: _____

Date Inspected: _____

Administration

Are the following documents available for use at the campus?

Yes	No	N/A	
			Spill Response Plan
			SPCC Plan

Are the site-specific sections of the above reports accurate?

Yes	No	N/A	
			CSUSM Description
			Fuel Storage
			Have monthly checklists been completed and filed?
			Are spill response numbers posted?

Have employees received appropriate training/briefings including?

Yes	No	N/A	
			SPCC Briefings (All)

Spill Response Equipment

Yes	No	N/A	
			Is spill response equipment available as indicated in the SPCC Plan?
			Is all spill response equipment in good working order

General

Yes	No	N/A	
			Are all areas free of unnecessary clutter?

Containment Berms/Structures

Yes	No	N/A	
			Are containment areas free of debris and liquid accumulations?
			Are containment/drainage structures intact, and free of cracks, breaches, etc.?

Aboveground Storage Tanks

Yes	No	N/A	
			Area valves, flanges, pumps, hoses, and gauges free of signs of leakage?
			Is leakage into secondary containment detected?
			Are AST audible alarms working properly?
			Is monitoring equipment operational?
			Are AST access points securely locked when not in use?
			Are pump controls operating properly?
			Are pump controls securely locked when not in use?
			Are Emergency Generator Enclosures, fences and doors securely locked to prevent unauthorized access?

Drainage

Yes	No	N/A	
			Are drainage ditches and culverts free of debris, trash, etc.?
			Are storm drain outlets adequately protected from erosion?

Remarks (Describe other problems or potential problems that may pose a hazard)

_____

_____

_____

Completed copies of this form shall be kept with the SPCC Plan for a minimum of three years and must be kept at the site for the lifetime of the campus.

APPENDIX E
Spill Prevention Briefing Log

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Spill Prevention Briefing Log

Date of Briefing: _____

Briefing Conducted by: _____

The following items were discussed at the meeting (check all that apply):

- ☐ SPCC Plan
- ☐ Applicable pollution control laws, rules and regulations
- ☐ Spill events or failures at this or other sites
- ☐ Operation and maintenance of equipment to prevent petroleum product spills
- ☐ Spill reporting procedures
- ☐ Other _____

CSUSM personnel in attendance:

_____

_____

_____

_____

_____

_____

_____

_____

Completed copies of this form shall be kept with the SPCC Plan for a minimum of three years and must be kept at the site for the lifetime of the campus.

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APPENDIX F
Oil Spill Response Plan

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Oil Spill Response Plan

This appendix describes procedures that are followed during small spills and offsite spills, spill reporting requirements, safety precautions that must be followed when responding to a spill, and step-by-step procedures to control a spill or leak.

F.1 Responding to Small Spills

Be prepared to control small spills – Safety comes first. Don't attempt to control a spill unless you're sure you can do it without hurting yourself or anyone else. Call 9-1-1 and evacuate the area if there is any potential for fire, explosion, or other hazard, or if the spill appears likely to migrate off-site. However, if you can safely control a spill by stopping the source of the release, do so as quickly as possible.

- Pick up spilled container and place it in a safe location while cleaning up the spill.
- If the spill occurs from a drum or tank, attempt to control the source by:
    - Closing a valve
    - Setting the drum upright
    - Plugging a hole, if applicable.

Use protective boots and gloves (such as nitrile or latex gloves) and a face shield, if applicable, while attempting to control a spill.

Be prepared to contain the spill, if it's safe to do so – Safety comes first. Once the spill is controlled, contain it, if safe to do so, so that the smallest possible area is impacted. It is most important to contain a spill so that it does not exit CSUSM property. This can be done through absorbent booms and/or granulated absorbent.

After eliminating any ignition sources, a spill may be contained by absorbing it, or by placing a physical barrier in its path. Usually it is not necessary to physically contact a spilled material or waste to prevent it from spreading. If the spill is small (less than five gallons), use granulated absorbent to soak it up and then properly dispose of the absorbent. If the spill is larger, use a combination of granulated absorbent and containment booms, as applicable, to prevent it from spreading.

Spill cleanup material could be considered a hazardous waste, depending on the material that is cleaned up. Handle cleanup materials carefully. The general rule is that if it's used to clean up hazardous waste, it's a hazardous waste.

F.2 Spill Reporting

If there is a spill or release of diesel fuel in quantities greater than 1 gallon at your facility:

1. Call 9-1-1, only if anyone is in immediate danger.
2. Contain the spill, if you can do it safely.
3. Call the environmental contacts listed below (see “Notification Procedure”) and wait for further instructions.

Notification Procedure

Floyd Dudley, Facilities Services Director, (760) 750-4600, or

Safety, Health & Sustainability Services, (760) 750-4502

Emergency Report Information

Be prepared to provide the following information:

- Name of caller
- Location of incident
- Phone number caller can be contacted for next one hour
- Alternate number (i.e., cell number)
- Location of spill and description of area impacted
- Identity of the substance released
- Quantity released or weight of material prior to and after spillage
- Any known or anticipated health risks
- Time, date, and duration of the spill
- Have any other reports been made, if so, to whom, where and when
- Very brief description of spill and if the release occurred to soil, water, air

Emergency Phone Numbers

Floyd Dudley, Facility Services Director

Work Hours: (760) 750-4600 (Office)

24-hour Contact Number: (760) 750-4567 (UPD Dispatch)

Government (with the exception of 9-1-1, these agencies will be contacted by the Safety, Health & Sustainability Department):

- Fire/Police/Emergency Dispatch 9-1-1 or (760) 750-4567
- California Office of Emergency Services (800) 852-7550
- San Diego Hazardous Materials Division (858) 505-6880
- National Response Center (800) 424-8802
- California Fish and Game (888) 852-7550
- San Diego RWQCB (619) 516-1990

F.3 Spill Safety Precautions

If product vapors are strong, an outside contractor with specialized training and proper respiratory protection must clean up the spill. Stand up-wind whenever possible. Contact the Safety, Health & Sustainability Department and continue monitoring the spill area to ensure the spill does not spread while you're waiting for a response team.

F.4 Procedures for Controlling and Cleaning up Spills and Leaks

1. **Don protective equipment:**
    - Chemical resistant gloves
    - Chemical splash goggles or ANSI Z-87.1 safety glasses
    - Use National Institute for Occupational Safety and Health (NIOSH) approved respirator in unventilated areas.
2. **Obtain spill control equipment:**
    - Fire extinguisher
    - Inert absorbent material
    - Shovel and broom
    - DOT-approved container for waste disposal
3. **Control procedure:**
    - Shut off all equipment and ignition sources near the spill area
    - Ventilate the area (if needed)
    - Control access to the area using barricades
    - Dike the perimeter of the spill area using absorbent material

- Control the source of the spill if safe to do so or transfer the source of the spill to a new container
- Use absorbent material to control the spill
- Shovel and broom used absorbent into a pile
- Pick up absorbent material and place in a DOT-approved container for shipping by a permitted hazardous waste hauler to an approved waste disposal facility. Label drum.

4. Decontamination procedure:

- After the absorbent material is removed, clean the floor using detergent.
- Wash with soap and water any part of the body that comes in contact with spill liquids.
- Prevent the release of soapy contaminated water from entering any storm drain conveyance systems.

5. Disposal procedure:

- The absorbent material contaminated with spill liquids is placed in a DOT-approved container.
- The container is labeled using a hazardous waste label, if applicable, or a non-hazardous waste label.
- Store container for pick up by an approved hazardous waste hauler.

Spill Incident Report Form

Give to Safety, Health & Sustainability Services Department

<table>
<tr><td colspan="3">1. Generator Area:</td></tr>
<tr><td colspan="2">2. Safety, Health & Sustainability Personnel:</td><td>3. Date and Time Incident Discovered:</td></tr>
<tr><td colspan="3">4. Briefly Describe Incident (Identify Material and Spill Level, Location of Release Specific Areas Affected, Equipment and Facilities Involved):</td></tr>
<tr><td colspan="2">5. Cause/Source of Release:</td><td>6. Duration of Release:</td></tr>
<tr><td>7. Released to:
☐ Soil ☐ Concrete ☐ Air
☐ Asphalt ☐ Sewer
☐ Storm Drain
☐ Dry Well
☐ Water/Waterways (describe):</td><td>8: Amount (lbs or gal)</td><td>9. Notified Fire Dept?
☐ No ☐ Yes ☐ N/A

Names:</td></tr>
<tr><td>10. Assistance Required from Contractor?
☐ No ☐ Yes (Who and Explain):</td><td colspan="2">11. Any Injuries:
☐ No ☐ Yes (Who and Explain):</td></tr>
<tr><td>12. Distance Spill Traveled:</td><td colspan="2">13. Off-site Property Affected:
☐ No ☐ Yes (Who and Explain):</td></tr>
<tr><td>14. Personal Protective Equipment and Spill Equipment/Material Used?
☐ No ☐ Yes (Who and Explain):</td><td colspan="2">15. Name and Address of Disposal Contractor:</td></tr>
<tr><td>16. Contamination Removed or Continued Remediation?</td><td colspan="2">17. Additional Information (If Necessary):</td></tr>
<tr><td>18. Person Making Report (Print Name and Title):</td><td colspan="2">19. Signature of Person Completing Form and Date:</td></tr>
</table>

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APPENDIX G
Secondary Containment Calculations

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Secondary Containment Calculations

Buildings 1-Craven Hall, 13-Markstein Hall, 15-University Hall, 17-Kellogg Library, 25-University Student Union (USU), 26/27-Arts/31 SBSB, 37/21-Science Hall 2/SHCS, 41-USB and 63-PSB ASTs are double-walled, e.g., an outer tank provides a secondary containment for the inner or primary tank. By design, secondary containment will contain the entire volume of the inner tank.

Tank	Length (Inches)	Width (Inches)	Height (Inches)	Volume[a] (Gallons)
Building 1 - Craven Hall AST				
Primary	-	-	-	550
Secondary	80.5	43.5	55.5	841
Building 13 - Markstein Hall AST				
Primary	-	-	-	500
Secondary	120	48	24	598
Building 15 - University Hall AST				
Primary	-	-	-	240
Secondary	110	42	13	260
Building 17 - Kellogg Library AST				
Primary	-	-	-	204
Secondary	132	44	13	327
Building 25 – USU AST				
Primary	-	-	-	380
Secondary	132	42	24	415
Building 26/27 Arts/31 SBSB AST				
Primary	-	-	-	500
Secondary	149	84	13	704
Building 37/21 - Science Hall 2/SHCS AST				
Primary	-	-	-	250
Secondary	192	84	11	768
Building 41 - USB AST				
Primary	-	-	-	140
Secondary	108	23	35	376
Building 63 - PSB AST				
Primary	-	-	-	500
Secondary	192	42.5	35	1,236

Page Break

Building 3-Science Hall 1 AST is single walled. The AST is housed in a secondary container that measures 60” x 53” x 27”. The volume of the secondary container is 372 gallons which is 36 gallons or 11% greater than the rated capacity (336 gallons) of the AST.

Tank	Length (Inches)	Width (Inches)	Height (Inches)	Volume[a] (Gallons)
Building 3 - Science Hall 1 AST				
Primary	60	27	48	336
Secondary	60	53	27	372
Building 902-Extended Learning Building				
Primary	-	-	-	-
Secondary				
Building 43 -Central Plant				
Primary	350	86	36	3052
Secondary				1832

a: 231 Cubic Inches = 1 Gallon

APPENDIX H
SPCC Site Plans

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APPENDIX I
AT&T AST Summary

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AT&T AST Summary

Contact:

AT&T's Environment, Health and Safety Hotline: (800) 566-9347

Chris G. Dalphy, Senior Manager

Environment, Health and Safety, AT&T Services, Inc.

Office: (951) 278-9857

Wireless: (562) 537-1833

Equipment:

The emergency generator and accompanying fuel tank specifications are as follows:

Generator: John Deere Model 6059TF, 134bhp diesel fueled

County of San Diego Air Pollution Control District Permit #APCD2005-PTO-979178

Aboveground Storage Tank (AST): 800 gallons, AST day tank – 190 gallons

Location: