

MCB Camp Pendleton Environmental Standard Operating Procedure



8 March 2024

Aboveground Storage Tank Management

Aboveground storage tanks (AST) on Marine Corps Base (MCB) Camp Pendleton operate under the authority of a Unified Program Facility Permit issued by the County of San Diego Department of Environmental Health and Quality, Hazardous Materials Division. The permit allows for the use of ASTs on MCB Camp Pendleton in compliance with governing regulations and AST management requirements. Because the improper use and management of ASTs can harm persons and the environment and result in adverse regulatory action, those responsible for their use must manage them properly and in accordance with the requirements of this Environmental Standard Operating Procedure (ESOP).

Operations and Maintenance

AST equipment must be maintained in accordance with the manufacturer's instructions and established operations and maintenance programs. AST exterior coatings must be kept free of corrosion, oil stains, or defects. All tank monitoring equipment must be maintained in good working order. Heavily weathered or inoperable equipment, such as broken gauges and alarm panels, must be immediately repaired or replaced if found to be defective during periodic visual inspections or scheduled inspections.

The following basic operations and maintenance requirements apply:

1. Do not overfill the tank;
2. Keep the tank in good condition without corrosion, damage, or leaks;
3. Keep level or leak controls in good condition and operating properly;
4. Keep vents clear of obstructions;
5. Be trained and prepared to address a spill when it happens;
6. Do not smoke or have open flames within 50 feet of the tank;
7. Keep the site clean of trash or other flammable materials stored nearby; and
8. Verify that tank warning signage, such as contents descriptions, labels prohibiting smoking and open flames, and United States Department of Transportation (DOT) / National Fire Protection Association (NFPA) diamonds, are present, not faded, and readable from a distance of 50 feet.

Environmental Compliance Coordinators (ECC), tank operators, or other designated personnel responsible for ASTs must report AST deficiencies to their maintenance manager to initiate repair tickets in MAXIMO.

Training Requirements

Unit Hazardous Waste Handlers need to complete the Hazardous Waste Handlers Course, and then the annual refresher course offered by the Environmental Security Department Training Section.

Tank Operators need to annually complete and document the USMC HQ/MCICOM – SPCC and Storage Tank Management course offered on MarineNet at <https://www.marinenet.usmc.mil/>.

Storage Tank Inspections

ECCs, tank operators, or other designated personnel responsible for ASTs must conduct daily visual inspections of tanks, pipelines, leak detection equipment, secondary containment systems, and any fill or dispensing apparatuses for ASTs that contain hazardous waste. ASTs that contain Petroleum, Oil, and Lubricants (POL) must be inspected monthly.

Records of AST inspections must be maintained at the responsible activity in the AST Records/Site Admin binder for at least three years.

Hazardous Waste AST Inspections. Each operating day, ECCs, tank operators, or other designated personnel responsible for AST compliance must inspect ASTs as follows and document their inspections on the Daily Hazardous Waste AST Inspection Checklist, which is attached to this ESOP for your use.

1. Verify that the AST, valves, and associated piping are in good condition and free of corrosion, and that there is no evidence of leaks or spills from the AST and associated piping or evidence of unauthorized dumping into the AST.
2. Verify that secondary containment drainage valves (if present) are closed and that the area around the tank is free of obstructions, debris, trash, or liquid.
3. Verify that spill buckets around fill ports (if present) are covered, empty, and clean.
4. Verify that leak detection devices are operational, and report any active or defective leak detection devices such as alarms, leak detection sensors, or pop-up leak detection gauges to your ECC and maintenance manager.
5. Verify that spill response equipment is available, in stock, and appropriate for the contents of the AST.

POL AST Inspections. Monthly, ECCs, tank operators, or other designated personnel must inspect their ASTs that contain 55 gallons or more of POLs for the following and document the inspection on the attached STI SP001 Monthly Inspection Checklist.

1. Visually inspect primary and secondary tank(s) for the presence of water, corrosion, and leaks;
2. Inspect the interstitial space of a double-walled tank for the presence of POLs;

3. Inspect concrete secondary containment structures for the presence of fluids;
4. Inspect pipe connections for evidence of corrosion and leaks; and
5. Inspect standard vents and emergency vents on primary and secondary tanks for cleanliness and remove debris.

Portable, Non-Tactical AST Inspections. In addition to fixed ASTs described in the previous sections, fuel tanker trucks, mobile refuelers, and portable tanks must be inspected monthly. Operators must ensure that all portable tanks, mobile equipment, appurtenances, pipes, valves, and the secondary containment storage areas are visually inspected for corrosion, deterioration, and leaks. The inspections include assessment of the condition of associated items such as piping connections, valves, metering pumps, transfer hoses, and level controls. Document the inspection using the attached STI SP001 Monthly Inspection Checklist. (Follow Technical Manual instructions for military tactical ASTs.)

Field-Erected AST Inspections. The Navy's Assault Craft Unit 5 (ACU-5) operates two field-erected ASTs in the 31 Area. The operators of these tanks will coordinate directly with the Environmental Security Department's Spill Prevention and Planning Section for inspection requirements that pertain to these systems.

Comprehensive Annual Inspections. The Environmental Security Department or an authorized contracted agent will conduct annual inspections of ASTs containing POLs and hazardous substances. These inspections will be documented on an Annual AST Inspection Checklist and retained at the Environmental Security Department office.

Recordkeeping

The following records must be maintained on-site for facilities with ASTs:

1. Safety Data Sheet for product stored in the AST;
2. Inspection records;
3. Operator and staff training records;
4. Secondary Containment Drainage Log; and
5. AST Certification & Engineering Exemption.

Secondary Containment Drainage Procedures

Many of the ASTs on MCB Camp Pendleton are single-walled and mounted within open secondary containment structures, such as concrete or steel dikes, that may be exposed to precipitation. The secondary containment areas may have open-and-closed types of valves that are normally closed to prevent uncontrolled discharge of contaminated stormwater from the containment area.

To ensure the safe discharge of uncontaminated stormwater from AST secondary containment areas, the Environmental Compliance Coordinator (ECC), tank operator, or designated personnel must adhere to the following procedures. (Note: these requirements also apply to 55-gallon drums in containment areas exposed to precipitation).

1. Determine the type of POL or hazardous substance stored in the AST.
2. Visually inspect the stormwater surface to ensure that no oily sheen, surface film, or coating is present prior to draining the secondary containment area.
3. If oil or hazardous substance is present, notify the Unit ECC and do not drain the secondary containment area. The ECC will determine how to remove the contaminated water for proper hazardous waste disposal. If the ECC has questions regarding what hazardous substance is in the secondary containment or how to remove it, then he or she should contact the Environmental Security Hazardous Waste Section at the contact information below.
4. After confirmation that no oil or hazardous substance is present or after proper removal of the oil or hazardous substance, check exposed drain pipes, valves, and connections to the containment structure for any blockage before draining.
5. Allow the secondary containment area to drain completely of water. After draining is complete, close and secure the drain valve.
6. Do not drain a containment structure near the end of a work shift. Do not allow a drain valve to be left open overnight or without observation.
7. Annotate all drainages from the secondary containment in the Secondary Containment Drainage Log.

For questions or assistance regarding stormwater discharges from secondary containment areas, contact the Environmental Security Department (Hazardous Waste Section) at (760) 725-4375/9742/1963/0213, (760) 763-1117/9624 or PNDL_ENV-Hazardous-Waste@usmc.mil.

Spills or Releases

Spills from ASTs require immediate attention to limit environmental harm and exposure hazards. In the event of a spill or release, follow the procedures in your Consolidated Emergency Response Contingency Plan. For sites without a Consolidated Emergency Response Contingency Plan, adhere to the following general procedures. For any observed problems, contact the Spill Prevention and Planning Section of the Environmental Security Department at (760) 542-5758 or (760) 390-1178.

General spill response procedures

1. Orient to the situation and develop a plan of attack.
2. Warn others and prevent or deny access to the area.

3. Stop the release and limit its travel if it safe to do so. If not, immediately dial 911.
4. If the release exceeds 42 gallons of POL, the below threshold quantities for water treatment chemicals, is in or threatening surface waters, or is combusting, immediately call 911. Otherwise:
 - a. Apply absorbent material/socks, excavate contaminated soil, and package contaminated sorbents and soils in an appropriate waste container(s).
 - b. Notify Environmental Security by calling (760) 542-5758 or (760) 390-1178 as soon as possible on a not to interfere basis with spill response activities.
 - c. Email a completed SRF-1 Form to [Spill Prevention and Planning Section@usmc.mil](mailto:Spill_Prevention_and_Planning_Section@usmc.mil).
5. Water Treatment Chemical Reporting Thresholds

Chemical	Threshold	Chemical	Threshold
42% ferric chloride	179 gallons	25% sodium bisulfite	1955 gallons
100% methanol	761 gallons	25% sodium hydroxide	375 gallons
30% orthophosphate "Aquapure"	1484 gallons	12.5% sodium hypochlorite	79 gallons
75% phosphoric acid	380 gallons	93% sulfuric acid	70 gallons

Storage Tank Closure

If an AST requires temporary or permanent closure, contact the Environmental Security Department Spill Prevention and Planning Section at (760) 542-5758.

Temporary Closure of POL ASTs. California regulations require all ASTs that contain combustible or flammable liquids and that are not used for a period of 90 days to be placed out-of-service. The following procedures apply to temporarily place a POL AST out-of-service:

1. Drain all stored fluids from the tank and associated piping by opening existing drain lines, operating existing pumps, manually removing liquids and residue, or other approved means. Collect all fluids in compatible containers for reuse, if possible. Collect waste materials in labeled drums for proper disposal.
2. Mark the tank and associated piping with signage that states "Empty", the date when it was placed out-of-service, and the statement "Last Contained [type product]". Cover all additional signage describing the tank's previous contents, including NFPA diamonds and/or DOT hazard placards with tape.

Permanent Closure of ASTs. California regulations require that ASTs that contained a POL, hazardous material/hazardous waste (including used oil), are out-of-service for one year or more, and are not planned to be reused, be permanently closed and removed from the property under the following procedures:

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1. When you want to remove an AST, contact the Environmental Security Department Spill Prevention and Planning Section so written notification can be made to the local Certified Unified Program Agency.
2. Drain all stored fluids from the tank and associated piping by opening existing drain lines, operating existing pumps, manually removing liquids and residue, or other approved means. Collect all fluids in compatible containers for reuse, if possible. Collect waste materials in labeled drums for proper disposal.
3. Disconnect and blank-off all piping, pumps, or additional equipment attached to the tank, with the exception of the normal vent line, using threaded plugs, caps, solid flanges, or other approved method. Close and lock all valves except for ventilation valves.
4. Mark the exterior of the tank with the label "Tank Permanently Closed", the date when it was closed, and the statement "Last Contained [type product]". Cover all additional signage describing the tank's previous contents, including NFPA diamonds and/or DOT hazard placards with paint or remove them.
5. AST cleaning and disposal must be conducted by a qualified commercial contractor.

For questions on this ESOP, contact the Spill Prevention and Planning Section at Environmental Security Department at (760) 542-5758, (760) 390-1178, or spill_prevention_and_planning_section@usmc.mil.

References

- (a) MCO 4450.12 (Storage and Handling of Hazardous Materials)
- (b) MCIWEST-MCB CAMPENO 5090.5 (Environmental Training)
- (c) MCIWEST-MCB CAMPENO 5090.7A (Hazardous Waste Management)
- (d) MCIWEST-MCB CAMPENO 5090.1 (Environmental Inspection Program)
- (e) Code of Federal Regulations Title 40, Part 112
- (f) MCB Camp Pendleton Spill Prevention, Control, and Countermeasures (SPCC) Plan
- (g) MCB Camp Pendleton Storage Tank Management Plan
- (h) California Code of Regulations, Title 22

Use and Version Control

MCB Camp Pendleton uses Environmental Standard Operating Procedures (ESOPs) to augment instructions contained in official orders and directives, and where necessary, to provide for sufficient control of the installation's significant practices. MCB Camp Pendleton maintains the authoritative, current version of this and other ESOPs on the MCB Camp Pendleton website at: <https://www.pendleton.marines.mil/Main-Menu/Staff-Agencies/Environmental-Security/Compliance-Requirements/Environmental-Standard-Operating-Procedures/>

**DAILY HAZARDOUS WASTE (INCLUDING USED OIL)
ABOVEGROUND STORAGE TANK INSPECTION CHECKLIST**

Tank ID No. _____ Month and Year: _____

Tank Capacity (gallons): _____ Tank Contents: _____

POC Name: _____ Phone No: _____

Day	Is secondary containment free from waste and liquids?		Is tank system free of leaks, corrosion, and damage?		Are piping, valves, and pumps free of leaks and in good condition?		Are high level and leak monitoring equipment working?		Is spill kit complete and placed at or near tank?		Inspector comments and Maximo Work Request Number for any deficiencies
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
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IN CASE OF SPILL, FOLLOW EMERGENCY SPILL FLOW CHART GUIDANCE!

Note: Complete spill kit must contain at a minimum one 25-lb bag of granular absorbent, 10-ft absorbent sock/boom, 10 absorbent pads, two pairs of nitrile gloves, two goggles, and two Tyvek suits.

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STI SP001 Monthly Inspection Checklist

General Inspection Information:

Inspection Date:		Retain until Date:		For Three Years
Inspector Name (print):		Title:		
Inspector's Signature		<input type="checkbox"/> Aboveground Storage Tank (Fixed)		
Facility Name		<input type="checkbox"/> Aboveground Storage Tank (Portable or Mobile)		
		<input type="checkbox"/> Emergency Generator Base Tank		
Tank/Building No.		Volume (Gallons):		Contents:

Inspection Guidance:

- This checklist is intended as a model. Locally developed checklists are acceptable as long as they are substantially equivalent (as applicable). Inspections of multiple tanks may be captured on one form as long as the tanks are substantially the same.
- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector per paragraph 4.1.2 of the standard.
- Upon discovery of water in the primary tank, secondary containment area, interstice, or spill container, remove promptly or take other corrective action. Inspect the liquid for regulated products or other contaminants and dispose of properly.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for at least 36 months.
- **After severe weather (snow, ice, wind storms) or maintenance (such as coating) that could affect the operation of critical components (normal and emergency vents, valves), an inspection of these components is required as soon as the equipment is safely accessible after the event.**

ITEM	STATUS	COMMENTS / DATE CORRECTED
Tank and Piping		
1 Is tank exterior (roof, shell, heads, bottom, connections, fittings, valves, etc.) free of visible leaks? Note: <i>If "No", identify tank and describe leak and actions taken.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2 Is the tank liquid level gauge legible and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3 Is the area around the tank (concrete surfaces, ground, containment, etc.) free of visible signs of leakage?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4 Is the primary tank free of water or has another preventative measure been taken? NOTE: Refer to paragraphs 6.10 and 6.11 of the standard for alternatives for Category 1 tanks. N/A is only appropriate for these alternatives.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

5	For double-wall or double bottom tanks or CE-ASTs, is interstitial monitoring equipment (where applicable) in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6	For double-wall tanks or double bottom tanks or CE-ASTs, is interstice free of liquid? Remove the liquid if it is found. If tank product is found, investigate possible leak.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Equipment on Tank			
7	If overfill equipment has a "test" button, does it activate the audible horn or light to confirm operation? If battery operated, replace battery if needed.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
8	Is overfill prevention equipment in good working condition? If it is equipped with a mechanical test mechanism, actuate the mechanism to confirm operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9	Is the spill container (spill bucket) empty, free of visible leaks and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10	Are piping connections to the tank (valves, fittings, pumps, etc.) free of visible leaks? Note: If "No", identify location and describe leak.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Do the ladders/platforms/walkways appear to be secure with no sign of severe corrosion or damage?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containment (Diking/Impounding)			
12	Is the containment free of excess liquid, debris, cracks, corrosion, erosion, fire hazards and other integrity issues?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
13	Are dike drain valves closed and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
14	Are containment egress pathways clear and any gates/doors operable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Concrete Exterior AST (CE-AST)			
15	Inspect all sides for cracks in concrete. Are there any cracks in the concrete exterior larger than 1/16"?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
16	Inspect concrete exterior body of the tank for cleanliness, need of coating, or rusting where applicable. Tank exterior in acceptable condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
17	Visual inspect all tank top openings including nipples, manways, tank top overfill containers, and leak detection tubes. Is the sealant between all tank top openings and concrete intact and in good condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Other Conditions			
18	Is the system free of any other conditions that need to be addressed for continued safe operation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Additional Comments and Photographs:

MCB CAMP PENDLETON SECONDARY CONTAINMENT DRAINAGE LOG

- Aboveground Tank
- Emergency Generator
- Transformer
- Hazardous Waste / Hazardous Material Storage Area

Activity: _____

Facility/Location: _____

Date	Drainage Start Time (Open Valve)	Drainage Stop Time (Close Valve)	Visual Observation Conducted (Yes/No)	Estimated Amount Drained (Gallons)	Remarks (e.g. water clear, oil sheen present, drained to oil/water separator, pumped out, oil leak and clean up required, etc.)	Name and Initial

PRIOR TO DRAINING STORMWATER FROM CONTAINMENT AREA, CHECK TO SEE IF OIL SHEEN IS PRESENT.
 DO NOT DRAIN STORMWATER FROM SECONDARY CONTAINMENT AREA IF OIL IS PRESENT.
 REFER TO OPEN SECONDARY CONTAINMENT STORMWATER DISCHARGE PROCEDURES ESOP.

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SRF-1 HAZARDOUS SUBSTANCE SPILL RELEASE REPORT

Date: DD-MMM-YY	Time:	Facility/Detailed Location:	Area:	Unit:
Reporting Party Contact Name:		Phone #:	Amount Released or Spilled:	
Source of Release or Spill:		Cause of Release or Spill:	Hazardous Substance Released or Spilled:	
			Latitude-Longitude-Grid:	
Areas Threatened or Damaged: a. Beach <input type="checkbox"/> b. River <input type="checkbox"/> c. Vegetation <input type="checkbox"/> d. Water Supply <input type="checkbox"/> e. Other			Potential Dangers: a. Fire <input type="checkbox"/> b. Explosion <input type="checkbox"/> c. Toxic <input type="checkbox"/> d. Reactive <input type="checkbox"/> e. Other	
Responders:		Responders Actions:		
Weather Conditions:		Samples Taken:		Casualties:

Detailed Description of Incident (Attach photos no larger than one megabyte on page two) Hazardous Waste Accumulation:

For spill response procedures, refer to the FIRST ON THE SCENE OIL / HAZARDOUS SUBSTANCE (OHS) DISCHARGE RESPONSE GUIDANCE

IMMEDIATELY CONTACT 911 for gas leaks, fires, uncontrolled chemical reactions, and releases that:

- (1) Are in or threatening water,
- (2) Have or are able to migrate off base,
- (3) Exceed 42 gallons for Petroleum, Oil, and Lubricants (POLs) and paint, five gallons for gasoline, and one gallon for DS-2, STB bleach, sulfuric acid, or other hazardous chemicals. FOR ALL RELEASES, contact Environmental Security at (760) 390-1178 or (760) 542-5758. COMPLETE THIS SRF-1 REPORT FORM and email to: Spill_Prevention_and_Planning_Section@usmc.mil

Directions: When filling out this form, ensure you are as detailed as possible. Include all pictures of the spill that you have taken.

Spill Cause Examples: Operator Error, Equipment Failure, Mechanic Error, etc.

Responder Action: Give a brief description of what the first on-scene did when the spill was first discovered.

Attach supporting photo images of incident and provide a brief description in the text field.

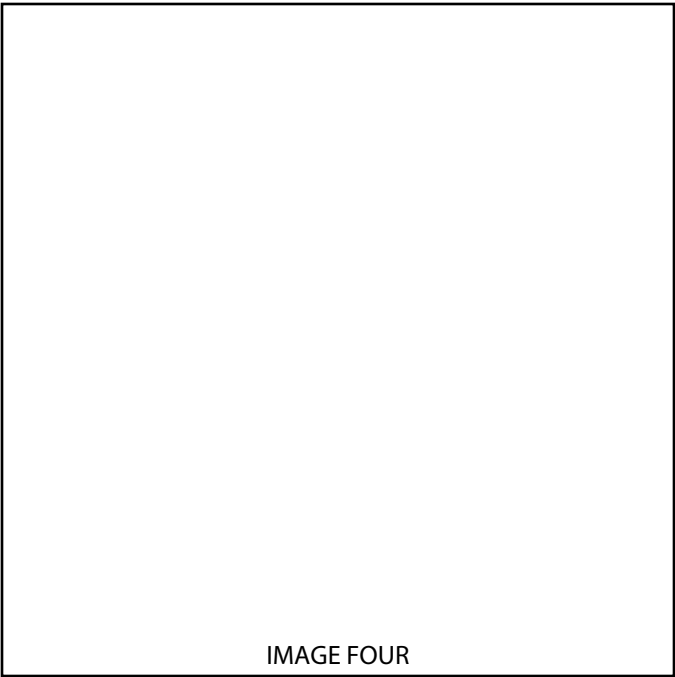
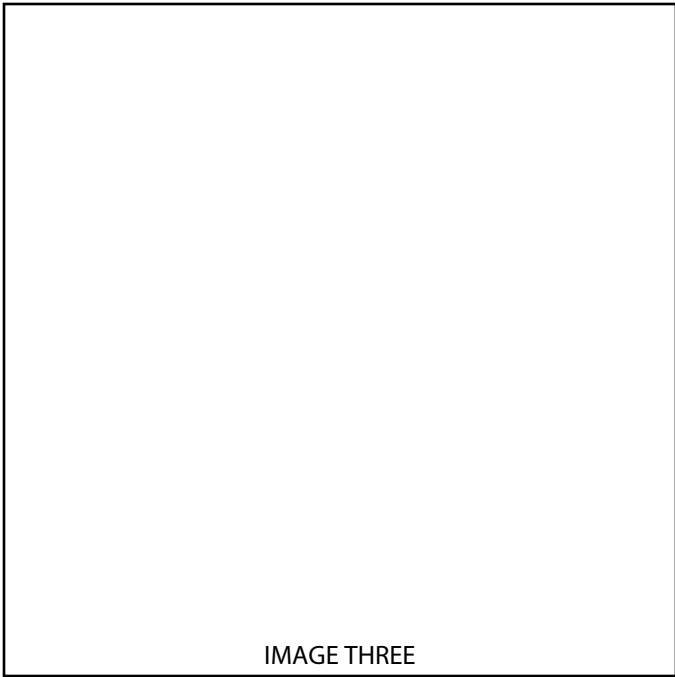
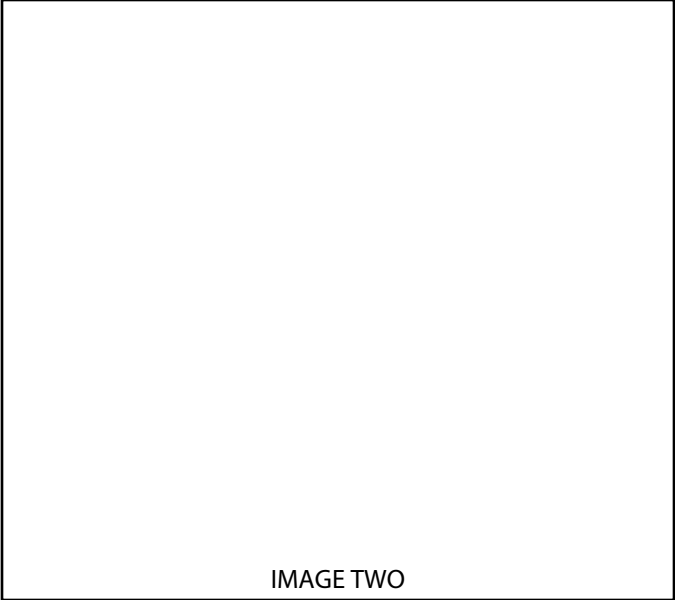
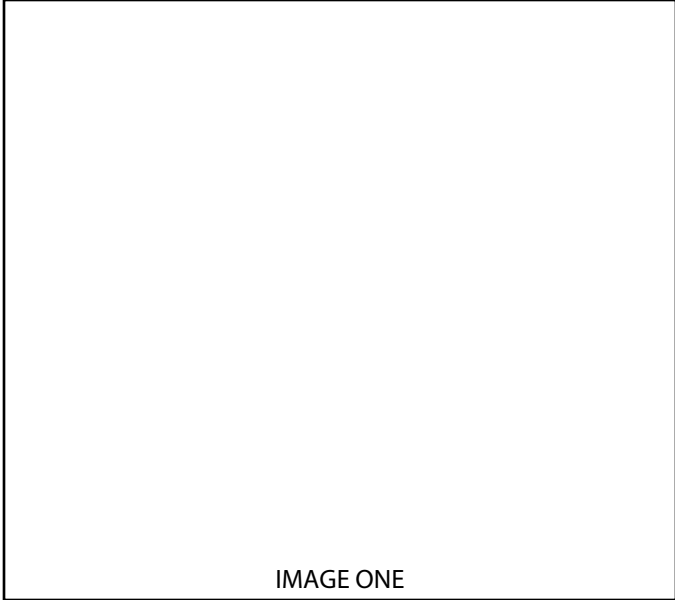


IMAGE ONE:

IMAGE TWO:

IMAGE THREE:

IMAGE FOUR: