REVISED 12 JUNE 2001

$V_5 = A_{S6} \Delta H_6 \cdot 0.5$

$V_5 = (27.5')(4.75')(9.97 - 9.67)(0.5)$

$V_5 = (130.6)(0.3)(0.5)$

$V_5 = \underline{19.6 \text{ FT}^3}$ ←

$V_6 = A_{S7} \Delta H_7 \cdot 0.5$

$V_6 = (29.25')(30.0')(9.97 - 9.05)(0.5)$

$V_6 = 877.5\,(0.92)(0.5)$

$V_6 = \underline{403.7 \text{ FT}^3}$ ←

$V_T = 306.3 + 233.7 + 849.9 + 1{,}787.5 + 19.6 + 403.7 \text{ FT}^3$

$V_T = 3{,}600.7 \text{ FT}^3\ (7.481 \text{ gal/FT}^3)$

$V_T = 26{,}937 \text{ gal}$

$V_7 = A_{S8} \Delta H_8$

$V_7 = (14.0')(15.5')(9.97 - 9.58)$

$V_7 = (217)(0.39)$

$V_7 = \underline{84.6 \text{ FT}^3}$ ←

$V_8 = A_{S9} \Delta H_9$ NEW CONCRETE POURED JANUARY 2001.

$V_8 = [(64.23')(31.5') - (17.5')(3.33')](9.97 - 8.82)$

$V_8 = [2023.2 - 58.3 \text{ FT}^2](1.15)$

$V_8 = 1{,}969.9\,(1.15) = 2{,}259.6 \text{ FT}^3$

$V_8 = \underline{2{,}259.6 \text{ FT}^3}$ ←

T.W. Rudolph

6/12/01

$V_T = \Sigma V_{1-8}$

$V_T = 3,600.7 \text{ FT}^3 + V_7 + V_8$

$V_T = 3,600.7 + 84.6 + 2,259.6$

$V_T = 5,944.9 \text{ FT}^3 (7.481 \text{ gal/FT}^3)$

$V_T = 44,473 \text{ GALLONS}$

THE LARGEST TANK VOLUME CAPACITY AT 110% IS:

$V_{SW1} = 1.1(30,000 \text{ gal}) = 33,000 \text{ gallons}$

THE SECONDARY CONTAINMENT VOLUME IS 44,473 GALLONS WHICH IS SUFFICENT FOR MEETING THE REQUIREMENT TO HAVE 110% OF THE LARGEST TANKS CAPACITY.

ADD VOLUME OF DRUMS TO THE SW1 SECONDARY CONTAINMENT VOLUME.

$V = V_{SW1} + V_D \cdot N_D$

$V = 33,000 \text{ GALLONS} + 55 \frac{\text{GALLON}}{\text{DRUM}} \ 48 \text{ DRUMS}$

$V = 33,000 + 2,640$

$V = 35,640 \text{ GALLONS}$

$\therefore$ SECONDARY CONTAINMENT VOLUME IS OK

J W Rudolph
6/12/01

FIND VOLUME OF SECONDARY CONTAINMENT

$V_T = V_1 + V_2 + V_3 + V_4 + V_5 + V_6 + V_7 + V_8$

$V_1 = [A_S - A_T]\,\Delta H$

$V_1 = [(115.4')(19.4') - \pi(12.5/2)^2 \cdot 9]\,(9.97 - 9.69)$

$V_1 = [2238.8 - 1104.5]\,0.27$

$V_1 = (1134.3\ FT^2)(0.27\ FT)$

$V_1 = \underline{306.3\ FT^3}$ ←

$V_2 = A_S \Delta H = A_{S1}\Delta H_1 + A_{S2}\Delta H_2$

$V_2 = \left[(28.71')(16.125') - \left(\frac{4}{12}\right)\left(\frac{8}{12}\right)\right](9.97 - 9.47) + [(28.71')(4')](9.97 - 9.85')$

$V_2 = [462.9 - 0.2](0.5') + [114.8](0.02')$

$V_2 = 231.4 + 2.3 = 233.7$

$V_2 = \underline{233.7\ FT^3}$ ←

$V_3 = A_{S3}\Delta H_3 + A_{S4}\Delta H_4 - \pi R_1^2 N - \pi R_2^2 N$

$V_3 = (45.8')(20.13')(9.97 - 9.14) + (25.33')(14.0')(9.97 - 8.96)$
$\quad - \pi(12.5/2)^2 \cdot 1 - \pi(2/2)^2 \cdot 48$

$V_3 = (922.0)(0.83) + (354.6)(1.01) - 122.7 - 150.8$

$V_3 = 765.3 + 358.1 - 122.7 - 150.8 = 849.9$

$V_3 = \underline{849.9\ FT^3}$ ←

$V_4 = A_{S5}\Delta H_5$

$V_4 = (112.0')(28.5')(9.97 - 9.41)$

$V_4 = 3192\,(0.56')$

$V_4 = \underline{1,787.5\ FT^3}$ ←

J W Rudolph

ENCLOSURE (2)

12/2/99

$V_5 = A_{S6} \Delta H_6 \cdot 0.5$

$V_5 = (27.5')(4.75')(9.97 - 9.67)(0.5)$

$V_5 = (130.6)(0.3)(0.5)$

$V_5 = \underline{19.6 \text{ FT}^3}$ ←

$V_6 = A_{S7} \Delta H_7 \cdot 0.5$

$V_6 = (29.25')(30.0')(9.97 - 9.05)(0.5)$

$V_6 = 877.5\,(0.92)(0.5)$

$V_6 = \underline{403.7 \text{ FT}^3}$ ←

$V_T = 306.3 + 233.7 + 849.9 + 1,787.5 + 19.6 + 403.7 \text{ FT}^3$

$V_T = 3,600.7 \text{ FT}^3\ (7.481 \text{ gal/FT}^3)$

$V_T = 26,937 \text{ gal}$

$V_7 = A_{S8} \Delta H_8$

$V_7 = (14.0')(15.5')(9.97 - 9.58)$

$V_7 = (217)(0.39)$

$V_7 = \underline{84.6 \text{ FT}^3}$ ←

$V_8 = A_{S9} \Delta H_9$

$V_8 = [(65')(32.17') - 15.33(4') - 6.93(61.5') - 3.15(61.5')](9.97 - 8.70')$

$V_8 = [2091.1 - 61.3 - 426.2' - 193.7](1.27')$

$V_8 = 1,409.9\,(1.27) = 1,790.6 \text{ FT}^3$

$V_8 = \underline{1,790.6 \text{ FT}^3}$ ←

JW Rudolph

12/2/99

$V_T = \Sigma V_{1-8}$

$V_T = 3,600.7 \text{ FT}^3 + V_7 + V_8$

$V_T = 3,600.7 + 84.6 + 1,709.6$

$V_T = 5,394.9 \text{ FT}^3 (7.481 \text{ gal/FT}^3)$

$V_T = 40,359 \text{ GALLONS}$

THE LARGEST TANK VOLUME CAPACITY AT 110% IS:

$V_{SW1} = 1.1(30,000 \text{ gal}) = 33,000 \text{ gallons}$

THE SECONDARY CONTAINMENT VOLUME IS 40,359 GALLONS WHICH IS SUFFICENT FOR MEETING THE REQUIREMENT TO HAVE 110% OF THE LARGEST TANKS CAPACITY.

ADD VOLUME OF DRUMS TO THE SW1 SECONDARY CONTAINMENT VOLUME.

$V = V_{SW1} + V_D \cdot N_D$

$V = 33,000 \text{ GALLONS} + 55 \frac{\text{GALLON}}{\text{DRUM}} \ 48 \ \text{DRUMS}$

$V = 33,000 + 2,640$

$V = 35,640 \text{ GALLONS}$

∴ SECONDARY CONTAINMENT VOLUME IS OK

JW Rudolph

12/2/99

USED OIL WEEKLY INSPECTION RECORD

Authorized Inspectors:

_____

_____

Site Location:						
Inspection Date:						
Inspection Time:						
Inspector's Initials:						
Site Status:						

INSPECTION ELEMENTS:

1. Check all drums for leaks, corrosion, bulging, etc.
2. Ensure all drums are closed and stored in secondary containment.
3. Make sure there is isle space between rows of drums.
4. Ensure ground straps available and unsealed containers of ignitables are grounded.
5. Ensure all drums are marked with the words "Used Oil"
6. Check containment condition; clean, dry drain secure.
7. Ensure facility secured against unauthorized entry.
8. Make sure personal Protective equipment is available.
9. Check condition of loading/unloading area
10. Check site perimeter: vegetation trimmed and no signs of leakage (dead vegetation or discolored soil).
11. Check for spill control supplies
12. Make sure fire extinguishers are full and sealed.
13. Check operation of emergency equipment (phone, alarm, water supply)
14. Make sure drums of used oil are in designated areas.
15. Make sure Contingency Plan emergency phone numbers are posted.

REMARKS (Date corrective action taken, sump drainage, and other observations):

NOTE: Inspections must be conducted at least every 7 days. Facility must maintain a record of each inspection for 3 years

ENVIRONEERING, INC.
(904) 665-0100
<4700-ENCLOSURE-3.XLS>

Table Created On 12/2/99

Water Recovery, LLC
1819 Albert Street
Jacksonville, FL

Enclosure (3)

Weekly Tank System Visual Inspection Checklist

YEAR:

GENERAL DESCRIPTION UST OR AST CAPACITY (GALLONS) TANK CONTENTS CHECKLIST ITEMS	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
GENERAL	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A
1. Tank System Contingency Plan on site and at appropriate location?												
2. If tank certificate of registration is required to be posted, is certificate posted?												
3. Are tank system components properly painted or identified?												
4. If tank system Alarm Panel exists, is panel powered and not in Alarm or System Failure condition?												
5. Is tank system Spill Kit on site?												
6. Is tank system Spill kit properly stocked?												
7. Is Spill Kit readily available and in designated location?												
8. Access to fill components locked or otherwise secured?												
9. Is tank surface free of dents, pits, cracks, rust or other damage?												
10. Is tank piping free of dents, pits, cracks, rust or other damage?												
11. No evidence of leakage around piping flanges, elbows and other fittings?												
12. Are piping sumps clear and unobstructed?												
13. Are Manway area free of product and other debris?												
14. Is secondary containment structure intact with drain valves closed?												

COMMENTS:

Enclosure (4)

red with a "No" ENCLOSURE (4)

Weekly Tank System Visual Inspection Checklist

YEAR:

GENERAL DESCRIPTION UST OR AST CAPACITY (GALLONS) TANK CONTENTS CHECKLIST ITEMS	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
GENERAL	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A	Y/N or N/A
15. No evidence of leakage around piping flanges, elbows and other fittings on day tank?												
16. No suspicious or unusual petroleum odors are present in the tank system area?												
17. No signs of distressed vegetation that could be the result of a petroleum release?												
18. Are manway/manhole covers in place correctly?												
19. If present are monitoring well and/or soil vapor well locked or other wise secured?												
20. SPCC Plan on site and in proper location?												
21. Alarms (float sensor, optical sensors) in correct position?												
22. Alarm wiring in good condition (not loose or frayed)?												
23. Security fence intact?												
24. Security lighting working properly?												
INSPECTOR'S INITIALS												
COMMENTS:												

Note: All releases, spill or leaks of Petroleum product over 25 gallons must be reported to the FDEP by the Spill manager.

ENCLOSURE (4)

* An explanation is needed for any item that is answered with a "No" ENCLOSURE (4)

ATE & INIT	Type of Activity				EXPLANATION
		Alarm Verification		Alarm Incidents & Results	
		Tank Malfunctions		Tank Repairs	
		Piping Malfunctions		Piping Repairs	
		Routine Maintenance		Tank System Modification	
		Monitor Repair		Tank Tightness Testing by Vendor	
		Tank System Alarm Panel		Other	
		Leak/Spill			
		Alarm Verification		Alarm Incidents & Results	
		Tank Malfunctions		Tank Repairs	
		Piping Malfunctions		Piping Repairs	
		Routine Maintenance		Tank System Modification	
		Monitor Repair		Tank Tightness Testing by Vendor	
		Tank System Alarm Panel		Other	
		Leak/Spill			
		Alarm Verification		Alarm Incidents & Results	
		Tank Malfunctions		Tank Repairs	
		Piping Malfunctions		Piping Repairs	
		Routine Maintenance		Tank System Modification	
		Monitor Repair		Tank Tightness Testing by Vendor	
		Tank System Alarm Panel		Other	
		Leak/Spill			

Record and activity regarding the fuel tank and/or piping that cannot be recorded or explained on the Monthly Tank System Visual Inspection Checklist.

1. Write the date and your initials in Column 1.
2. Mark the appropriate box in Column 2.
3. Explain in detail whatever occured, whatever you did and whatever you found during inspections.

Enclosure (5)

SECONDARY CONTAINMENT FLUID REMOVAL RECORD

Water Recovery
1819 Albert Street
Jacksonville, Florida 32202

LOCATION: _____

DATE: _____

TIME: _____

OPERATOR: _____

ACCUMULATED FLUID (Circle): Diesel / Water / Used Oil / Other (Specify): _____

APPROXIMATE VOLUME OF FLUID: _____
SOURCE OF ACCUMULATED FLUID: _____
APPEARANCE OF FLUID PRIOR TO REMOVAL (Color, Sheen, Etc.): _____

_____

_____

ACTION TAKEN PRIOR TO REMOVAL OF PETROLEUM: _____

_____

DESCRIBE ANY WASTES GENERATED (Volume, Disposal, Etc.):

_____

_____

REMOVAL OF INDUSTRIAL WASTEWATER MUST BE IN ACCORDANCE WITH SECTION 3.4 OF MANAGEMENT PROCEDURE 4700.

DESCRIBE ANY WASTES GENERATED (Volume, Disposal, Etc.): _____

_____

COMMENTS: _____

_____

Oil and Grease Scan does not exceed 5 ppm **Yes / No - CIRCLE ONE AND ENCLOSE ANALYTICAL RESULTS, IF NO IS CIRCLED HAVE INDUSTRIAL WASTEWATER SENT TO A PERMITTED PRETREATMENT FACILITY FOR PROCESSING.**

<4200-ENCLOSURE-2>

Enclosure (6)