District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-147
Revised April 3, 2017

Recycling Facility Only

Type of action: [X] Permit [ ] Registration [ ] Modification [ ] Closure [ ] Other (explain) _____

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

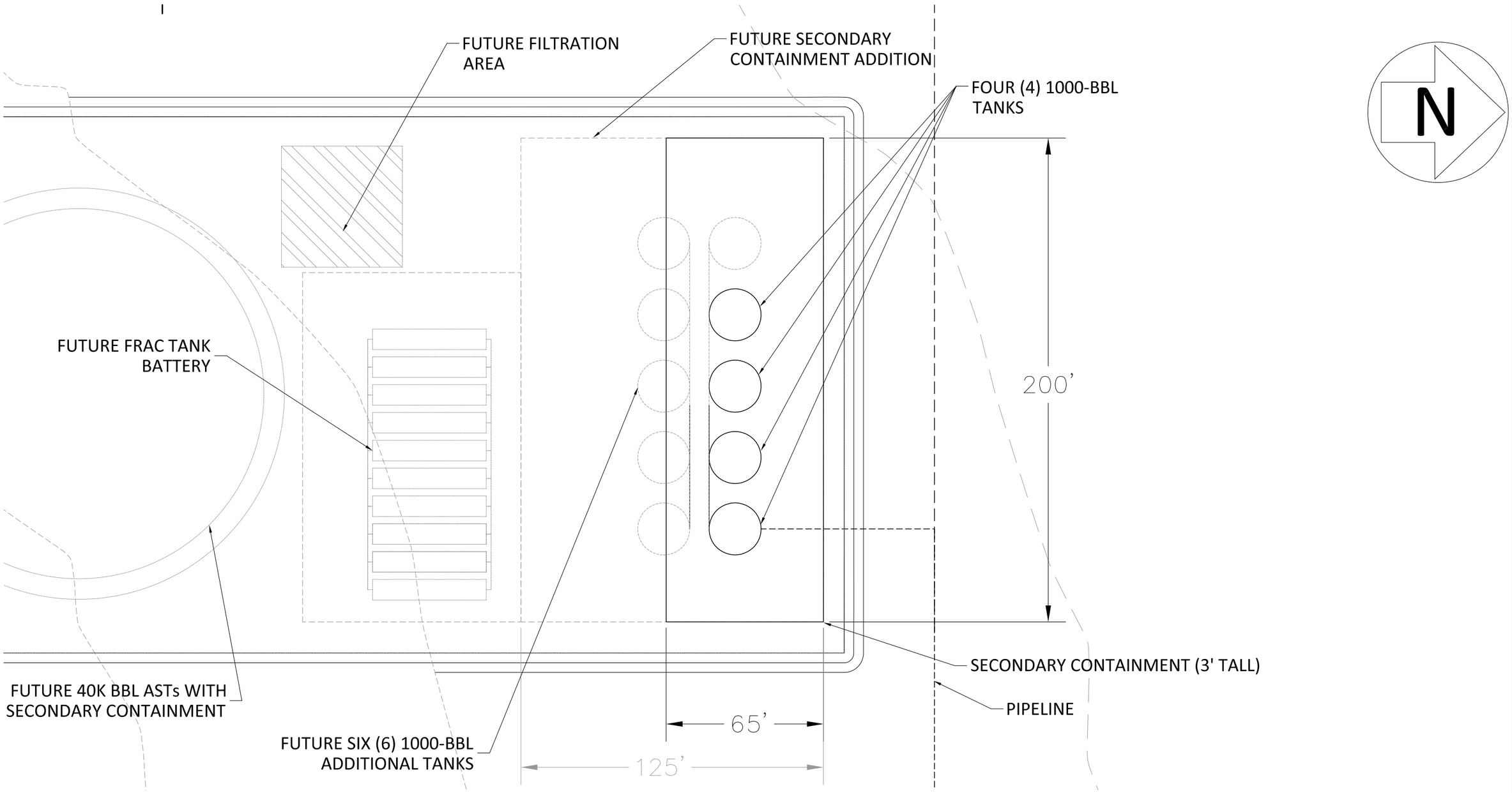
1.
Operator: SOLARIS WATER MIDSTREAM, LLC (For multiple operators attach page with information) OGRID #: _____
Address: 9811 KATY FREEWAY, SUITE 900, HOUSTON, TEXAS 77024
Facility or well name (include API# if associated with a well): LANDES WATER RECYCLING FACILITY
OCD Permit Number: _____ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr E/2 NW1/4 Section 22 Township 25S Range 28E County: EDDY
Surface Owner: [ ] Federal [ ] State [X] Private [ ] Tribal Trust or Indian Allotment

2.
[X] **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.117435° Longitude -104.075971° NAD83
Proposed Use: [ ] Drilling* [X] Completion* [ ] Production* [ ] Plugging *
The re-use of produced water may NOT be used until fresh water zones are cased and cemented
[ ] Other, ***requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.***
[X] Fluid Storage
[X] Above ground tanks [ ] Activity permitted under 19.15.17 NMAC explain type _____
[ ] Activity permitted under 19.15.36 NMAC explain type: _____ [ ] Other explain _____
[ ] **Closure Report (required within 60 days of closure completion):** [ ] **Recycling Facility Closure Completion Date:** _____

3.
Variances:
Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.
Check the below box only if a variance is requested:
[ ] Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.
If a Variance is requested, it must be approved prior to implementation.

4.
Operator Application Certification:
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.
Name (Print): Todd Carpenter Title: Produced Water Manager
Signature: Todd Carpenter Date: 8-13-18
e-mail address: Todd.Carpenter@solarismidstream.com Telephone: 432-413-0918

5.
OCD Repr **Approval/Registration Date:** October 2, 2018
Resentative Signature: **OCD Permit Number:** _____
Title: [ ] OCD Conditions
[ ] Additional OCD Conditions on Attachment



REVISIONS				
No.	DATE	DESCRIPTION	DRAWN	CHKD

EOR	DRAWN
JDA	GJJ
PM	CHECKED
JDA	JDA

LANDES

PRODUCED WATER RECYCLING FACILITY CONCEPTUAL SITE LAYOUT

PREPARED FOR:

SOLARIS WATER MIDSTREAM

PREPARED BY:

ALL CONSULTING
GOVERNMENT RELATIONS - ENERGY - PLANNING - TECHNOLOGY
ENGINEERING - ENVIRONMENTAL

1718 SOUTH CHEYENNE AVE, TULSA, OK 74119
PHONE: 918.382.7581
WWW.ALL-LLC.COM

PN #1680-REC.04

JULY 2018

C1

CLOSURE PLAN AND CLOSURE COST ESTIMATE

LANDES WATER RECYCLING FACILITY

SOLARIS MIDSTREAM

CLOSURE PLAN

Procedure and Protocols

The following information describes the closure plans for the tank battery with secondary containment at the Landes Water Recycling Facility.

After operations cease, all fluids will be removed within 60 days and the recycling tank battery and secondary containment closed within six months. All removed liquids, solids, and liner materials will be collected and transferred to an NMOCD-approved disposal facility within the six month period.

After the contents and liner removal, a five-point composite sample will be collected from beneath the secondary containment and analyzed for constituents listed in Table I of 19.15.34.14 NMAC. The composite sample will include stained or wet soil areas, if any.

- If any constituent concentrations exceed the values listed in Table I (based on depth from bottom of containment to groundwater), the NMOCD district office will be contacted requesting approval before proceeding with closure activity.
- If all constituent concentrations are less than or equal to the values listed in Table I, closure will proceed by backfilling with native, local, non-waste containing, earthen material and topped with stockpiled topsoil.

Within 60 days of completing closure, a Closure Report from NMOCD Form C-147, including required attachments, will be submitted to document all closure activities including sampling results and details of any backfilling, capping, or covering, were applicable. The Closure Report will certify that all information in the report and attachments is correct and that all applicable closure requirements and conditions specified in NMOCD rules and directives have been met.

The facility is located on company-owned private land. As portions of the facility cease operations, the equipment will be de-inventoried to address environmental and safety concerns. However, the equipment may remain an asset to be re-started, re-purposed, or sold. The post-closure land use of the property has not yet been determined by the owner. There are no plans for re-development of the site after closure at this time.

Soil Backfill and Surface Remediation Plans

The location will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed areas. Topsoil and subsoil will be replaced to their original relative positions and contoured to achieve erosion control, long-term stability, and preservation of surface water flow patterns.

The location will be reseeded in the first favorable growing season following closure with the goal of substantially restoring the impact surface location to the existing condition prior to construction of the recycling containments. Surface reclamation will be deemed complete when: all ground surface disturbing activities have been completed; a uniform vegetative cover with a life-form ratio of plus or

minus 50% of pre-disturbance levels has been established; and a total percent plant over of at least 70%, excluding noxious weeds, has been established.

NMOCD will be notified when reclamation and re-vegetation are complete.

CLOSURE COST ESTIMATE AND FINANCIAL ASSURANCE REQUIREMENTS

This section describes cost estimates for closure of the water recycling facility at the Landes Water Recycling Facility. The estimated costs shown are based on prices and rates for necessary closure construction.

The estimated costs shown for disposal of waste and demolition debris are based on disposal in an authorized commercial disposal facility. Disposal costs assume that no naturally occurring radioactive materials (NORM) are needed to be disposed. The cost includes estimates for removal of the recycle water system tanks and contents. A contingency is included in the estimated cost total. A summary of the estimated cost is shown in the table below. The total estimated cost for closure of the Landes Water Recycle Facility without contingency is $66,800.

Pursuant to the requirements of NMAC 19.15.34.15, Solaris Water Midstream plans to file a Surety Bond or an Irrevocable Standby Letter of Credit from an authorized bank, payable to the State of New Mexico, for financial assurance meeting the requirements. Financial assurance will be submitted on the required NMOCD forms in the amount of $73,480 upon approval of this application.

Closure Cost Estimates	
Produced Water and Sludge Removal	$ 16,800
Recycle Tank Removal and Disposal	$ 40,000
Site Restoration	$ 10,000
10% Contingency	$ 6,680
Total Estimated Closure Costs	$ 73,480

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN (SPCC)

FOR:

Landes Recycling Facility, Eddy County, NM

SOLARIS® WATER MIDSTREAM

907 Tradewinds Boulevard
Midland, TX 79701

ORIGINAL DATE OF PLAN: JULY 2018

DATE OF LAST PLAN AMENDMENT/P.E. CERTIFICATION: N.A.

DATE OF LAST PLAN REVIEW: N.A.

DESIGNATED PERSON ACCOUNTABLE FOR SPILL PREVENTION: STEPHEN MARTINEZ

CERTIFICATION

I HEREBY CERTIFY THAT I, OR MY AGENT, HAVE EXAMINED THE SUBJECT FACILITY, AND BEING FAMILIAR WITH THE PROVISIONS OF 40 CFR PART 112, ATTEST THAT THE SPCC PLAN HAS BEEN PREPARED IN ACCORDANCE WITH PART 112 REQUIREMENTS AND GOOD ENGINEERING PRACTICES, INCLUDING CONSIDERATION OF APPLICABLE INDUSTRY STANDARDS AND THAT PROCEDURES FOR REQUIRED INSPECTIONS AND TESTING HAVE BEEN ESTABLISHED.

ENGINEER: J. DANIEL ARTHUR

SIGNATURE:

REGISTRATION NUMBER: 21858

STATE: NEW MEXICO

DATE: 8/13/2018

JAMES DANIEL ARTHUR
NEW MEXICO
21858
8/13/18
PROFESSIONAL ENGINEER

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

SPCC COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with 40 Code of Federal Regulations (CFR) 112.5(b), review and evaluation of the Spill Prevention, Control, and Countermeasure (SPCC) Plan is conducted at least once every five years. As a result of these reviews and evaluations, Solaris Water Midstream, LLC (Solaris) will amend the SPCC Plan contained herein within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) such technology has been field-proven at the time of review. Solaris will submit a signed statement documenting the completion of the review and evaluation, including whether or not Solaris will amend the existing SPCC Plan based on the review and evaluation. Any technical amendments to any SPCC Plan contained herein shall be certified by a Professional Engineer within six months after a change in facility design, construction, operation, or maintenance occurs which materially affects a facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

Review Dates	Signature
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

*SPCC Plan(s) amended and certified by a Registered Professional Engineer per 40 CFR 112.3(d).

MANAGEMENT APPROVAL

SOLARIS WATER MIDSTREAM, LLC IS COMMITTED TO THE PREVENTION OF DISCHARGES OF OIL TO NAVIGABLE WATERS AND THE ENVIRONMENT, AND MAINTAINS THE HIGHEST STANDARDS FOR SPILL PREVENTION, CONTROL AND COUNTERMEASURES THROUGH REGULAR REVIEW, UPDATING, AND IMPLEMENTATION OF EACH SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN FOR EACH PRODUCTION AND STORAGE FACILITY WITHIN LOVING, NEW MEXICO.

Authorized Facility Representative: Stephen Martinez

Signature: _____

Title: Sr. Vice President - Operations

Spill Prevention, Control and Countermeasure Plan Evaluations and Reviews (40 CFR 112.5(b))

I have completed review and evaluation of this SPCC Plan for the Landes recycling facility in Eddy County, New Mexico, and hereby approve the contents of the facility SPCC Plan and have the authority to commit the necessary resources to implement the SPCC Plan, as set forth in this document, in accordance with the federal requirements of 40 CFR Part 112.

Corporate Representatives

Signature:		Signature:	
Name:	Stephen Martinez	Name:	Jason Pyle
Title:	Sr. Vice President - Operations	Title:	HSE Manager
Date:	8/13/2018	Date:	8-13-18

Authorized Production Field Representatives

Signature:		Signature:	
Name:	Jason Pyle	Name:	Mike Titsworth
Title:	HSE Manager	Title:	Sr. Operations Mgr. – NM
Date:	8-13-18	Date:	8/13/2018

SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN REVISION RECORD

NOTE: It is the responsibility of the holder of this plan to insure that the most recent version of the plan is in use and available to site personnel, and that any prior plan is removed from circulation.

CHANGE DATE	AFFECTED PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)	NAME
July 2018	All pages	Initial Issue of SPCC Plan for Landes Recycling Facility, Eddy County, New Mexico production and/or storage facility.	D. Arthur

SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN DISTRIBUTION LIST

NOTE: Plan Distribution Procedures provided in **Section 1.3** and the Plan Review and Update Procedures provided in **Section 1.4** should be followed when making any and all changes.

COPIES ISSUED	PLAN HOLDER	LOCATION
01	Solaris Houston Office Files	Houston, TX
02	Jason Pyle, HSE Manager	Midland, TX
03	Mike Titsworth, Operations	Midland, TX
04	Landes Recycling Facility	Eddy Co., NM
05	ALL Consulting, LLC	Tulsa, OK

1.0 INTRODUCTION AND PLAN CONCEPT

1.1 INTRODUCTION

The Spill Prevention, Control and Countermeasure (SPCC) Plan and the requirements contained herein apply to the qualifying production and storage facility of Solaris Water Midstream, LLC (Solaris) in Eddy County, New Mexico. In the event of a spill, corrective actions will be taken immediately upon discovery in order to eliminate or mitigate a pollution incident. **Section 2.0** provides the Notification Procedures and **Section 3.0** provides the Immediate Response Actions for the Facility. **Sections 4.0 through 9.0** address the spill prevention and control practices and procedures in place at the Facility, and **APPENDIX A** contains site-specific information for the facility.

1.2 PLAN PURPOSE/OBJECTIVES

This SPCC Plan is intended to provide a ready reference and guide to assist facility personnel in establishing and maintaining an efficient and effective prevention, control, and countermeasure program for potential discharge incidents from the facility.

Specific objectives include:

- Identify the designated personnel accountable for spill prevention and define their responsibilities and authority.
- Define typical and specific spill prevention, control and countermeasure procedures and practices for each facility, including notifications, inspections, recordkeeping, training, and response actions.
- Outline notification and response procedures for the early stages of a spill-control effort.

1.3 PLAN DISTRIBUTION PROCEDURES

The distribution of this plan will be coordinated through the Houston office of Solaris. This plan will be distributed in the following manner:

- Plan will be distributed in portable document format.
- A master distribution list that includes the name of the individuals to whom the plan is distributed (plan holder) and their location will be maintained.
- A complete copy of this plan will be maintained at Solaris's Houston, TX Corporate office, at the Solaris Midland, TX field office and/or at each facility office manned four (4) hours per day or greater as established in 40 CFR 112.3(e).
- This plan will be made available to the U.S. Environmental Protection Agency (EPA) Regional Administrator for on-site review during normal working hours.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

The procedures for reviewing and updating this plan will be coordinated by the individual named under the ***"Designated Person Accountable for Spill Prevention"*** on the COVER PAGE to this plan. Support will be drawn from the Solaris corporate office.

1.4.1 Facility Changes Requiring Plan Amendments

The plan will be updated and revised accordingly with each change in the subject facility's design, construction, operation, or routine maintenance that significantly affects the facility's potential for discharging oil into or upon the navigable waters of the United States or adjoining shorelines. Such amendments should be put into practice as soon as possible, and documented and certified not later than six (6) months after such changes occur.

Changes requiring revisions may include, but are not limited to:

- Commissioning or decommissioning of tanks;
- Replacement, reconstruction, or movement of tanks;
- Construction or modifications to secondary containment structures and/or drainage systems;
- Demolition of secondary containment structures and/or drainage systems;
- Reconstruction or installation of piping systems;
- Revision of standard operating or maintenance procedures at the Facility.

Facility changes will be reviewed for specific impacts to this SPCC Plan.

1.4.2 SPCC Plan Amendments

Amendments to this plan will be coordinated with the "***Designated Person Accountable for Oil Spill Prevention***" and the Solaris Houston, TX office for issues regarding word processing, publication, and distribution.

The Plan Holder is responsible, immediately upon receipt of any revisions, for reviewing the amendments summarized on the "REVISION RECORD" page in the foreword.

1.4.3 Certifications of Amendments

All technical amendments to this plan, except for changes to personnel and telephone numbers, must be certified by a Registered Professional Engineer to satisfy the requirements of 40 CFR Part 112 (See COVER PAGE). Non-technical amendments to this plan, such as word processing edits will not require recertification of that plan.

1.4.4 Plan Review

At least once every five (5) years, Solaris will complete a review and evaluation of this SPCC Plan and make amendments, if necessary, within six (6) months of the review. The plan will be recertified after the review and implementation of any necessary modifications to each specific facility.

The review will include at a minimum the following:

- Applicability of new prevention and control technology that may significantly reduce the likelihood of a spill episode from the Facility, if such technology has been field proven at the time of the review;
- Accuracy of the SPCC Plan as compared to the current facility operation and appropriate SPCC regulations;

- ❑ Capacity and structural integrity of secondary containment structures;
- ❑ Facility inspections and record review to insure continuity for a minimum period of five (5) years.

1.5 REGULATORY COMPLIANCE

This plan address the following regulatory requirements:

- ❑ Federal Spill Prevention, Control and Countermeasure Regulations;
  - U.S. EPA Final Rule for Oil Pollution Prevention;
  - Non-Transportation Related Onshore and Offshore Facilities (40 CFR Part 112 – as published on July 17, 2002).
- ❑ State Regulations:
  - New Mexico Administrative Code Title 19, Chapters 1, 15, 26, and 27
  - New Mexico Administrative Code Title 20, Chapters 1, 2-6, and 9

1.5.1 General Applicability

This requirement applies to any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil and oil products, and that meets the following criteria:

- ❑ Due to its location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shoreline; **and**
  - Has an aggregate aboveground storage capacity in excess of 1,320 gallons, counting only containers with a capacity of 55 gallons or greater in the calculation of the total aboveground storage capacity, or
  - Has an underground storage capacity in excess of 42,000 gallons, not including completely buried storage tanks, as defined in §112.2, that are currently subject to all of the technical requirements of 40 CFR Parts 280 or 281, or any completely buried storage tank that is permanently closed, as defined by §112.2.

1.5.2 Discharge Reporting Requirement

Federal discharge reports are required when oil is discharged into or upon the navigable waters of the United States or adjoining shorelines under the following conditions:

- ❑ Single discharge events of greater than 1,000 gallons of oil, or
- ❑ Two or more discharge events with each event greater than 42 gallons of oil within any twelve (12)-month period.

For the subject facility, the following information must be submitted to the Regional Administrator (RA) within 60 days from the time the qualifying discharge occurs:

- ❑ Name of Facility;
- ❑ Name(s) of owner or operator of the Facility;
- ❑ Location of the Facility;
- ❑ Maximum storage or handling capacity of the facility and normal daily throughput;

- Description of the Facility, including plot plan, flow diagrams, and topographical maps;
- The cause(s) of such discharge, including a failure analysis of system or sub-systems in which the failure occurred;
- The corrective actions and/or countermeasures taken, including an adequate description of equipment repaired and/or replaced;
- Additional prevention measures taken or contemplated to minimize the possibility of recurrence;
- Such other information as the RA may reasonably require that is pertinent to the SPCC Plan or a spill event.

The EPA's RA can also request a copy of the SPCC Plan during the investigation of the discharge.

2.0 DISCHARGE NOTIFICATION AND REPORTING PROCEDURES

The requirements for spill notification and reporting to local, state, and/or federal officials depend upon the nature and extent of a spill. Notification of, and, reporting to the National Response Center (NRC), U.S. EPA, Local Emergency Planning Committee (LEPC), local Fire Department, the New Mexico Oil Conservation Division (NMOCD), or the New Mexico Environment Department (NMED) may be required.

Notification requirements can be found in **TABLES 2.1-2.2**.

2.1 DISCHARGE REPORTING

In the event of a *reportable* discharge (spill) (as defined in the applicable regulations [**TABLES 2.1-2.2**]), notifications should be made to qualifying agencies. Internal notification contacts are provided in **TABLE 2.3**. Emergency external notification contacts are provided in **TABLE 2.4**. Agency contacts are provided in **TABLE 2.5**.

2.1.1 Reporting Instructions

Use the appropriate form(s) in **APPENDIX B**, FIRST REPORT OF INCIDENT and SPILL LEAK REPORT to document all verbal reports made to the various regulatory agencies for reportable oil, produced water, and hazardous substances discharged. Completed copies along with any additional information on attached sheets as determined necessary should be submitted to the various agencies requiring a written report.

Report what is known and do not speculate; additional calls can be made for significant events to report additional data or to correct the initial report. Record the report number obtained from the NRC.

After initial submittal of the form if any discharge data changes, resubmit a revised form, marked clearly with "***REVISED***." On the revised form, please reference the date of the original report.

Location

- **Discharge Location**: Identify the location of the discharge such that the site of the discharge can be located in the future; use maps when available.

Discharge Details

- **Materials Released**: This is usually crude oil or other hydrocarbons, but can be untreated produced water, deck drainage, drilling mud, any materials that cause a sheen or a hydrocarbon sludge, or a hazardous substance release which exceeds its reportable quantity.
- **Volume Released** (if applicable): Use the known volume of the container, or make a best estimate of discharge size. If the volume is less than 1 barrel (Bbl), report volume in gallons.
- **Released to**: What medium(s) did the discharge impact? Fill in volume amounts of impact to each type of medium.
- **Date & Time When Release was Detected**: When was the release detected? If known, use actual date and time discharged; if not, use date of first communication.

- **Cause of Release**: Include the source of the release (discharge) and how the release occurred, if known at the time of report.

Environment

- Describe the environmental conditions (wind direction, land/water areas endangered, weather conditions, and precipitation amount) at the time and place of the release.

Control, Containment and Cleanup

- **Date & Time of Release Shut-off**: Give date and time of shut-off, and how the discharge was shut-off, unless the discharge has not stopped when the report is sent to the agencies.
- **Equipment and Procedures Used to Control and Cleanup the Discharge**: Discuss the equipment and procedures used to contain and clean up the release. State specific equipment numbers if appropriate; be detailed in your description of the chronological events and procedures employed. Attach additional pages if necessary.
- **Amount of Discharged Material Recovered**: Estimate the volume of discharged material recovered in gallons and/or barrels if appropriate.
- **Chemicals Used, if any** (amount & name): Record how much of each type of cleanup or dispersant chemicals were used. Also, record the name and agency of the person who authorized use of a chemical.
- **Date & Time Cleanup Completed**: Record the exact date and time the cleanup was completed, and who stated that the cleanup was sufficient to stop action.
- **Cleanup Costs** (excluding repairs): If not complete at time of report, estimate when the cleanup will be completed and total cleanup cost.
- **Action Taken to Prevent Future Releases**: Write what action will be taken to prevent future discharges from this source.

Agencies and Persons Notified

- Record the name, phone number, agency, date, time, report number, and content of conversation for each person notified. Use additional pages if necessary.

Signatures

- Sign and date the report; include your title and phone number.

2.2 EXTERNAL NOTIFICATIONS

Reportable quantities vary regarding each local, state, and/or federal agency and with regard to the spills location (on site or in transit) and its potential to cause harm to the surrounding environment. A discharge is defined by the U.S. EPA in §112.2 as "any spilling, leaking, pumping, pouring, emitting, emptying, or dumping". Non-reportable spill events must be addressed immediately by containing, removing, and disposing of the released material according to applicable regulations.

Requirements for the reporting of spills of crude oil, produced water, hazardous substances, or unauthorized releases of gases are dictated by various local, state and federal agencies. For spills of crude oil or produced water, the reporting requirements are based on the volume spilled (the regulations treat these two materials in the same manner) and whether the crude oil/water spilled has the potential to contaminate the surface of the land, or water on the surface or in the subsurface.

2.2.1 Crude Oil/Produced Water Spill Notifications

The types and volumes of crude oil/produced water spills that require reporting to one or more local, state, or federal agency are outlined in **TABLES 2.1-2.2**. **TABLE 2.3** provides internal emergency notification contact information. **TABLE 2.4** details external notification references, and **TABLE 2.5** details the necessary agency contact information.

TABLE 2.1: REPORTING REQUIREMENTS FOR UNCONTAINED CRUDE OIL AND/OR PRODUCED WATER SPILLS TO LAND

Type and Volume of Spill	Reporting Requirements for Spills: State, Fee or BLM Leases
≤100 bbls spill of crude oil/produced water contained in secondary containment	**LEPC** – Verbal Notification as soon as possible if any substance released results in an imminent health threat to off-site human receptor. Since the spill is contained, this would include instances where there is a nearby residence, business, occupied structure, etc., and there is a potential for fire, explosion, or release of noxious gases such as H_2S. Email written report within 15 days.
>100 bbls spill of crude oil/produced water contained in secondary containment.	**LEPC** – Verbal Notification if any substance released results in an imminent health threat to off-site human receptor. Since the spill is contained, this would include instances where there is a nearby residence, business, occupied structure, etc., and there is a potential for fire, explosion, or release of noxious gases such as H_2S. Email written report within 15 days. **BLM** – (*Only if spill is from BLM lease*). Written report within 15 days.

TABLE 2.2: REPORTING REQUIREMENTS FOR UNCONTAINED CRUDE OIL AND/OR PRODUCED WATER SPILLS TO NAVIGABLE WATER

Type and Volume of Spill	Reporting Requirements for Spills: State or Fee Leases
Any amount of crude oil or produced water	**NMDOT** – Verbal notification within 24 hrs followed by a written report within 30 days, if while transporting, the discharge of any substance results in injury, death or transportation delay. **NMED** – If **no reasonable threats** of detriment to water, or substantial damage, no notification required. If **substantial threat** to water or for damage or to human health, verbal notification within 24 hours, and written report to district office within 7 days describing proposed clean-up. Written report within 15 days of release describing how it was cleaned up. Note-this applies to all off-site incidents where a release occurs (transportation, etc.) as well. **LEPC** – Verbal Notification immediately. Email written report within 15 days.
<5 bbls	**NMOCD –** If **no reasonable** threats of detriment to water, or substantial damage, no notification required. If **substantial threat** to water or for damage, verbal notification within 24 hours, and written report to district office within 15 days. Use form C-141 in **Appendix B**. **BLM –** (*Only if spill is from BLM lease*) If spill occurs in "sensitive area[1]" verbal notification within 24 hrs, written report within 15 days of the release (in duplicate). Otherwise, report on Monthly Operation and Monthly Sales and Royalty Forms.

[1] Sensitive areas are parks, recreation areas, wildlife refuges, lakes, reservoirs, streams, and urban or suburban areas.

TABLE 2.2: REPORTING REQUIREMENTS FOR UNCONTAINED CRUDE OIL AND/OR PRODUCED WATER SPILLS TO NAVIGABLE WATER	
Type and Volume of Spill	**Reporting Requirements for Spills: State or Fee Leases**
>5 bbls but <10 bbls	**NMOCD** – If **no reasonable threat** to water or for damage, no verbal notification, but written report to district office within 15 days. Use form C-141 in **Appendix B**. If **reasonable threat** to water or damage, verbal notification within 24 hours, and written report to district office within 15 days. Use form C-141 in **Appendix B**.
>10 bbls but <25 bbls	**NMOCD** – If **no substantial threat** to water or for damage, no verbal notification, but written report to district office within 15 days. Use form C-141 in **Appendix B**. If **substantial threat** to water or damage, verbal notification within 24 hours, and written report to district office within 15 days. Use form C-141 in **Appendix B**.
>10 bbls, but <100 bbls	**BLM –** (*Only if spill is from BLM lease*) If spill occurs in "sensitive area" verbal notification within 24 hours, written report within 15 days of the release. Otherwise, no verbal notification, but written report within 15 days of release.
>25 bbls	**NMOCD** – Verbal notification within 24 hours, and written report to district office within 15 days. Use form C-141 in **Appendix B**.
>100 bbls.	**BLM –** (*Only if spill is from BLM lease*) Verbal notification within 24 hours, written report within 15 days of the release.

2.3 INTERNAL NOTIFICATIONS

The following notifications need to be made immediately following initial discharge response actions:

- ❑ Notification of the Field Foreman or designated alternate by initial discharge observer
- ❑ Field Foreman will contact necessary Solaris Energy III LLC representatives

In no event shall notification be delayed because the immediate supervisor is inaccessible. Authorization is given to bypass management levels if necessary to provide immediate notification to upper management.

Solaris telephone references are provided in **TABLE 2.3**: INTERNAL NOTIFICATION REFERENCES. Solaris's Standard Incident Report Forms (**APPENDIX B**) or similar forms will be used to document the incident. The **FIRST REPORT OF INCIDENT** form should be filled out immediately by the supervisor or his designate and submitted to the "***Designated Person Accountable for Oil Spill Prevention***." A copy should be forwarded to the Solaris corporate office and one copy should be filed in the Solaris Midland, TX Field Office.

TABLE 2.3: INTERNAL NOTIFICATION REFERENCES				
INTERNAL NOTIFICATIONS				
TITLE	**NAME**	**LOCATION**	**OFFICE**	**CELL**
Sr. Operations Manager	Mike Titsworth	Midland, TX	432-254-1328	432-254-1328
HSE Manager	Jason Pyle	Midland, TX	432-203-9020	512-750-2723
Sr. Vice President	Stephen Martinez	Midland, TX	432-203-9020	432-556-0262

TABLE 2.4: EXTERNAL NOTIFICATION REFERENCES			
LOCAL EMERGENCY SERVICES			
DIAL 911 FOR ALL POLICE, FIRE, AND AMBULANCE EMERGENCIES	**LOCATION**	**PRIMARY**	**SECONDARY**
HOSPITALS			
Carlsbad Medical Center	2430 W Pierce St, Carlsbad, NM 88220	911	575-887-4100
Artesia General Hospital	702 N 13th St, Artesia, NM 88210	911	575-748-3333
Lea Regional Medical Center	5419 N Lovington Hwy, Hobbs, NM 88240	911	575-492-5000
SHERIFF'S DEPARTMENTS			
Eddy County Sheriff	1502 Corrales Dr, Carlsbad, NM 88220	911	575-887-7551
FIRE DEPARTMENTS (ROUTED THROUGH SHERRIFF)			
Joel Volunteer Fire Department	402 E Derrick Rd, Carlsbad, NM 88220	911	575-885-4966
Artesia Fire Department Station 1	3300 W Main St, Artesia, NM 88210	911	575-746-5051
Loco Hills Fire Department	132706 Lovington Hwy, Loco Hills, NM 88255	911	575-677-2349
Eunice Fire Department	2301 Ave O, Eunice, NM 88231	911	575-394-2111

TABLE 2.5: AGENCY CONTACT INFORMATION		
AGENCY	**VERBAL NOTIFICATION**	**WRITTEN NOTIFICATION**
National Response Center (NRC)	800-424-8802	National Response Center c/o United States Coast Guard (CG-5335) 7581 2100 2nd Street, SW Washington DC 20593
Environmental Protection Agency (EPA)	800-887-6063 214-665-2760	Regional Administrator EPA Region 6 Main Office 1445 Ross Avenue Suite 1200 Dallas, Texas 75202
Bureau of Land Management (BLM)	575-234-5972	**Pecos District** Kari Vasenden, Field Manager 620 E. Greene St. Carlsbad, NM 88220 Report of Undesirable Event Fax to: 575-885-9264
New Mexico Department of Transportation (NMDOT)	Within 24 hours report (same as NRC) 800-424-8802 **District 2**: 575-637-7200	*Within 30 days:* New Mexico Department of Transportation 4505 West Second St. Roswell, New Mexico Hazardous Materials Incident Report on Form F5800.1
New Mexico Environment Department (NMED)	505-827-9329	New Mexico Environment Department District 3 – **Las Cruces** Michael Kesler, District Mgr 2301 Entrada Del Sol Las Cruces, NM 88001 575-526-6162
Eddy County Local Emergency Planning Committee (LEPC) (or Local Fire, Sheriff, Police)	911 505-476-9600	**Eddy County** 101 East Greene Street Carlsbad, NM 88220 E-mail address: jarnwine@eddy.oem.com
Landowner	Landowner Specific	Contingent on Landowner Agreement

3.0 SPILL COUNTERMEASURES

Spill Response Actions

- ❑ Protect Yourself.
  - All personnel in the spill area shall wear Personal Protective Equipment (PPE). PPE shall consist of a minimum of steel-toed boots, hardhat, protective eye-wear (Occupational Safety and Health Administration [OSHA] "Level D") PPE in addition to an H_2S monitor and fire-resistant ("FR") clothing.
  - Use testing and sampling equipment to determine potential safety hazards. Use an H_2S monitor, as stated above, as a minimum, and an organic vapor analyzer or lower explosives limit meter, if necessary.
- ❑ Eliminate Ignition Sources and Restrict Access to the Spill Area.
  - E.g., all gasoline/diesel engines (all motor vehicles); smoking; non-intrinsically safe cameras, phones, iPods, iPads, MP3 players, etc.; cutting/welding operations; flaming devices; and metal-to-metal contacts that could create a spark.
- ❑ Take Immediate Steps to Shut Off the Spill Source.
  - E.g., close valves, shut off pumps, and/or activate Emergency Shutdown (ESD) station, shut off pumps, and/or close valves.
- ❑ Contain the Spill Using Facility and/or Locally Available Spill Response Equipment.
- ❑ Assess the Spill.
  - Use **APPENDIX B** (FIRST REPORT OF INCIDENT and SPILL/LEAK REPORT FORM) as guidance and documentation of the required data.
- ❑ Notify the Field Foreman or designated alternate.
  - Describe the spill and any actions taken that may affect facility operations. Designated person will make Internal and External Notifications.
- ❑ Clean Up the Spill as Necessary.

4.0 TRAINING AND INSPECTIONS

4.1 PERSONNEL TRAINING AND SPILL PREVENTION PROCEDURES

Personnel training and spill prevention procedures are in place at the facility and include the following:

- All maintenance and operating personnel receive on-the-job training on the proper operation and maintenance of the Facility's discharge-prevention equipment.
- Solaris has a continuing program of informing operating personnel of the laws and regulations that concern pollution prevention and control. Personnel are kept informed of their obligation to prevent any pollution incident during annual training meetings and regularly scheduled safety meetings.
- Annual training meetings include discussions of the SPCC Plan, spill incidents, equipment failures that could potentially result in discharges, maintenance of pollution control equipment, and newly developed spill control methods.

All pertinent safety meetings, spill-prevention briefings, and training sessions are documented on the "SPCC TRAINING RECORD" (a sample of which is provided in **APPENDIX D**). These training records are retained on file at the Solaris corporate office and the appropriate field office.

4.2 INSPECTION AND RECORDKEEPING

Facility-inspection and record-keeping requirements are detailed throughout the pertinent sections of the SPCC Plan. Generally:

- Facility personnel make periodic inspections of each Facility during normal working hours, and
- Records of monthly and annual inspections for each facility are maintained on file at the Facility, or field office for a minimum period of three (3) years.

Sample inspection forms are included in **APPENDICES D through G**.

5.0 FACILITY DRAINAGE

5.1 DIKED STORAGE AREA DRAINAGE

Containment area drainage procedures consist of:

- Natural dissipation of stormwater, the accumulation of which shall not significantly impact containment volume.
- Removal of stormwater via vacuum truck, if needed to protect facilities.

APPENDIX G contains the CONTAINMENT AREA DRAINAGE FORM, which details the procedures for inspection of accumulated stormwater in the event of an emergency condition in which the liquids require pumping outside of the containment.

5.2 UN-DIKED AREA DRAINAGE

Non-Containment Areas (e.g., some parking areas, ditches, and sumps) are not contained and are monitored as follows:

- Lease operators conduct visual inspections while making their rounds. Inspections include field-drainage ditches, road ditches, and sumps, if such exist.
- If any oil accumulations are found during these inspections, the Supervisor is immediately notified. The supervisor then dispatches a maintenance crew to pick up the oil with field equipment or calls out a vacuum truck as the situation demands.
- In the event that a spill or discharge is discovered, immediate actions to contain and remove the spilled liquids will commence.

6.0 BULK STORAGE TANKS, MOBILE AND PORTABLE CONTAINERS

6.1 TANK DESIGN AND CONSTRUCTION

The Facility's bulk oil and oil products storage tanks have been designed in accordance with industry standards. The tanks have the following design characteristics:

- Tanks are constructed of a material that is compatible with the oil and oil products stored and the conditions of storage.
- Tanks are constructed of welded or bolted steel to American Petroleum Institute (API) standards.
- Tanks are operated within "Safe Fill" levels positioned below the capacity limits of the tank.
- Pressure/vacuum-relief valves are installed on each tank.
- Various tanks (but not all tanks) at the facility has equalizing lines. The tanks have adequate capacity to assure that they will not overflow should operating personnel be delayed in making their rounds.
- Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets, and/or bolts large enough to cause the accumulation of oil in diked areas are promptly corrected.

6.2 MOBILE OR PORTABLE CONTAINERS

The Facility's mobile and portable containers of oil or oil products have been designed in accordance with industry standards. Containers have the following design characteristics:

- Containers are constructed of a material that is compatible with the oil and oil products stored and in the conditions of storage.
- Containers have visible gauges allowing for the filling and/ or storing of oil or oil products in a safe manner.
- Containers that are located outside of diked areas are located in some form of secondary containment constructed of either metal or hard plastic.
- Visible leaks that result in a loss of oil from seams, gaskets, rivets, bolts, and appurtenances and are large enough to cause the accumulation of oil in contained areas are promptly corrected.
- Containers measuring less than 55 gallons in volume are exempt from inclusion, and therefore, are not considered.

6.3 SECONDARY CONTAINMENT

All storage tanks are situated such that retention devices provide secondary containment for the entire contents of the largest single tank plus sufficient freeboard (the volume of a 24-hour rainfall during a 25-year storm).

All portable and mobile storage containers are located within double-walled systems or secondary containment troughs capable of retaining the entire contents of the container plus sufficient freeboard (the volume of a 24-hour rainfall during a 25-year storm).

Solaris's *alternative requirements* program includes the following:

- ❑ Visually inspect and/or test FTPE and associated components (such as dump valves) for leaks, corrosion, or other conditions that could lead to a discharge. Inspections shall be periodic and on a regular schedule.
- ❑ Take corrective action or make repairs to FTPE and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.
- ❑ Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with FTPE.

6.4 INSPECTION PROGRAMS

All tanks and mobile or portable containers that store oil or oil products are inspected in the following manner:

- ❑ Management personnel inspect each storage tank and container at least annually and when material repairs are completed. Inspection records are retained on file at the Facility for a minimum period of three (3) years.

  The annual inspection consists of a detailed review of the following:

  - Appurtenances
  - Firewalls
  - Foundation
  - Structure
- ❑ External visual inspections for signs of deterioration, leaks, and accumulation of oil inside the containment areas are made during operating personnel rounds.
- ❑ SAMPLE TANK INSPECTION PROCEDURES and documentation forms are provided in **APPENDIX F**.
- ❑ The schedule and records of examinations are maintained on file at the Facility office for a minimum period of three (3) years.

6.5 TANK INTEGRITY TESTING

Category 1 AST: AST with spill control and Continuous Release Detection Method (CRDM)
Category 2 AST: AST with spill control but no CRDM
Category 3 AST: AST without spill control or CRDM

Note: Any AST in contact with the native ground is categorized as Category 2 or 3.

AST TYPE	AST SIZE (Gallons)	CATEGORY 1 AST	CATEGORY 2 AST	CATEGORY 3 AST
	1,000,000+	P, E **(At Least Every 20 Years)**	P, E & L **(At Least Every 5 Years),** I **(At Least Every 15 years)**	P, E & L **(At Least Every 5 Years),** I **(At Least Every 10 years)**
Portable Containers	≥ 55	P	P	P**

P – Periodic AST Inspections, E – Formal External AST Inspections, I – Formal Internal AST Inspections, L – Leak Test

** *Discontinue use of portable container for storage or have the portable container DOT tested and recertified per the following; every 7 years for a plastic portable container, every 12 years for a steel portable container, or every 17 years for a stainless steel portable container.*

7.0 TRANSFER OPERATIONS, PUMPING AND IN-PLANT PROCESS

7.1 ABOVEGROUND VALVES AND PIPING EXAMINATION

All aboveground valves, piping, and associated facilities are examined by operating personnel in the following manner:

- Informal inspections are conducted during operating personnel rounds.
- Aboveground valves and piping are examined (monthly at a minimum) for the general condition of items such as:
  - Flange Joints
  - Valve Glands and Bodies
  - Drip Pans
  - Pipe Supports
  - Pumping Well Polish Rod Stuffing Boxes
  - Bleeder and Gauge Valves
- Records of these examinations are maintained on file at the facility for a minimum period of three (3) years. A sample VALVE/PIPELINE & WELLHEADS INSPECTION CHECKLIST is provided in **APPENDIX E**.

7.2 PRODUCED WATER STORAGE FACILITIES

Produced Water Storage Facilities are frequently inspected for signs of leaks and after sudden changes in atmospheric temperature as follows:

- The Solaris facility is visually inspected during operating personnel rounds.
- The tanks are drained by vacuum trucks, as needed.
- Monthly system inspections are conducted during Facility Inspections.

7.3 FLOWLINE MAINTENANCE

The Facility's flowlines are inspected and maintained as follows:

- Flowlines in field are checked daily during operators rounds across the field. Leaks and spills are cleaned up as they occur and documented. See **Section 3 – Spill Countermeasures**.
- In existing flowlines where a significant corrosion potential is suspected, monitoring techniques such as iron counts, corrosion coupons, or corrosion probes are used to determine the need for injection of chemical inhibitors.
- Flowlines are inspected at both ends for signs of leakage during operating personnel rounds. Inspection consists of a detailed review of the following:
  - Aboveground Pipe Supports
  - External Corrosion Protection
  - Internal Corrosion Protection
- The schedule and records of examinations are maintained on file at the Facility office for a minimum period of three (3) years. Documentation regarding flowline inspection is included on the piping checklist (**APPENDIX E**).

8.0 TANK TRUCK LOADING/UNLOADING RACK

Minimum Requirements During Loading/Unloading Operations

The following minimum procedures are followed during loading and unloading operations:

- A quick drainage system is employed during loading and unloading operations whenever a rack area drainage catchment basin or diked flow route to a containment area is not present. (Catchment basins are present at all facility transfer areas).
- Drivers are trained to properly disconnect transfer lines and drain and close spill pots before departing.
- Prior to filling of any tank car or truck the lowermost drain and all outlets are inspected and tightened or replaced if necessary.

NOTE: The SPCC regulations pertaining to onshore oil and gas production operations do not require documentation of these routine procedures for tank truck loading/unloading operations.

9.0 SECURITY

The SPCC regulations pertaining to onshore oil and gas production operations do not require documentation of security procedures. However, facility accesses are controlled by fencing and gates where deemed necessary and production loading valves are tagged when not in use.

APPENDIX A

FACILITY-SPECIFIC DATA

LANDES RECYCLING FACILITY
EDDY COUNTY, NEW MEXICO

- FACILITY DESCRIPTIONS & INFORMATION
- FACILITY SITE LOCATION MAP
- FACILITY CONTAINMENT CALCULATIONS
- FACILITY SITE PLAN

Eddy County, New Mexico

The following table is populated with the date of the last facility inspection as a quick reference.

Facility Name	Date of Last Inspection
Landes Recycling Facility	July 2018

Facility Name	Date of Last Inspection

<table>
<tr><td colspan="2">Solaris Water Midstream, LLC: Eddy County, New Mexico

Landes Recycling Facility</td></tr>
<tr><td>Physical Address:

See Directions Below</td><td>Corporate Mailing Address:
907 Tradewinds Boulevard
Midland, TX 79701
Field Office:
Carlsbad, New Mexico
Site Location:
Loving, New Mexico</td></tr>
<tr><td>Facility Type:

Produced Water Recycling Facility</td><td>Products Handled:

❑ Natural Gas
❑ Natural Gas Condensate
❑ Lubricating Oil
❑ Crude Oil
❑ Methanol
❑ Production Chemicals (ethylene glycol and triethylene glycol)</td></tr>
<tr><td colspan="2">Tank Locations: Eddy County, NM

Directions: From Loving, New Mexico:

1. Head south on US Hwy 285 S for approximately 12 miles;
2. Turn right onto County Road 722 and proceed 0.2 miles;
3. Landes Recycling Facility is on the left.</td></tr>
<tr><td colspan="2">Typical Operations: This facility contains typical operations associated with recycling produced water from oil and gas extraction.</td></tr>
<tr><td colspan="2">Potential Spill Impacts: Potential areas of impact from Facility are:

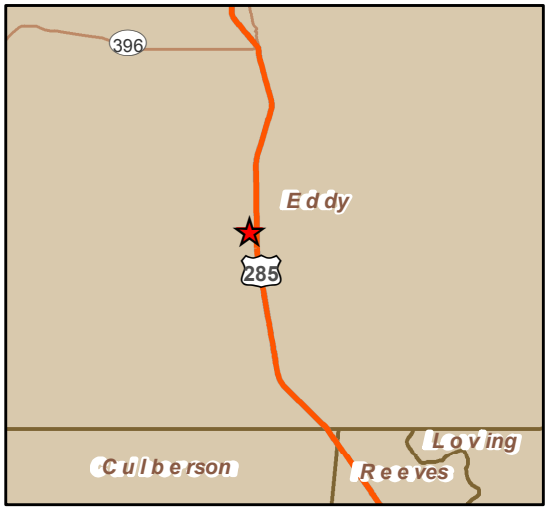
❑ Natural Drainage Routes
❑ Various Draws</td></tr>
</table>

SPCC Site Location Map

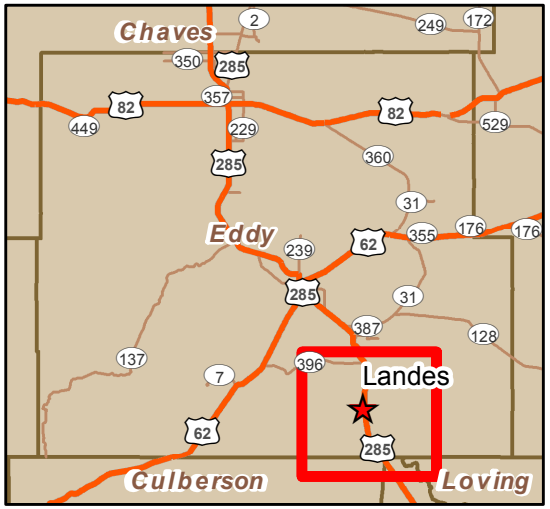
Prepared for:

SOLARIS WATER MIDSTREAM

1:500,000



1:2,000,000



Landes Water Recycling Facility		
County: Eddy, NM	Date: 7/27/2018	
Lat: 32.117018	PM: J Daniel Arthur	
Long: -104.077259	Map: Ben Bockelmann	1:10,000

0 500 1,000 2,000 Feet

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Prepared by:

ALL CONSULTING

Secondary Containment Inventory
Landes (temporary)

	Access Lat.	Access Long.	Battery Lat.	Battery Long.
Battery: Landes (temporary)	#N/A	#N/A	32.117677	-104.077775

911 Address: 2430 W Pierce St, Carlsbad, NM 88220

County: Eddy

Spill History: None.

Date: 07/25/18

Number of qualifying containment areas: 1

Does entire site have containment: No

General flow direction on site: Southeast

Describe: All tanks present within containment.

General flow direction of area: Southeast

Secondary Containment #1

Containment Material: Metal firewall w/interior liner

Number of vessels within SC: 4

Containment Size: 200 ft. long, 65 ft. wide, 3.0 ft. high.

# of Vessels	Vessel (type)	Dimensions (ft)		Commodity	Major type of failure	Vessel capacities (bbl)		Flow rate (bbls/hr)
		Diam / width	Hgt / length			Single	Total	
4	Vert. storage tank (cyl)	21	16	Produced Water	Rupture	1,000	4,000	
0								
0								
0								
0								

Total bbls within containment area: 4,000

Secondary Containment #2

Containment Material:

Number of vessels within SC: 0

Containment Size: - ft. long, - ft. wide, 0.0 ft. high.

# of Vessels	Vessel (type)	Dimensions (ft)		Commodity	Major type of failure	Vessel capacities (bbl)		Flow rate (bbls/hr)
		Diam.	Hgt/length			Single	Total	

Total bbls within containment area:

Additional Oil-Filled/Process Equipment On-Site

Number of entities: 2

# of Vessels	Vessel (type)	Dimensions (ft)		Commodity	Major type of failure	Vessel capacities (bbl)		Flow rate (bbls/hr)
		Diam.	Hgt/length			Single	Total	
0								
0								
0								
0								
0								
0								
0								
0								

Total bbls within containment area:

Secondary Containment Calculations
Landes (temporary)

Secondary Containment #1

(1) Gross Containment Structure Volume

Containment = Length x Width x Height

200.0	ft.	X	65.0	ft.	X	3.0	ft.	=	39,000 ft^3

39,000	ft^3	x	7.48	gal/ft^3	x	1 bbl/42 gal		=	6,946 bbl

(2) Calculated Volume of Displacement From Tanks within Containment Structure

Rectangular Tank Displ = (# of tanks-largest) x L x W x H

Vert Cylindrical Tank Displ = (# of tanks-largest) x 1/4(W^2) x 3.14 x H

Horiz Cylindrical Tank Displ =(# of tanks-largest)x (berm height/width of tank) x 1/4(W^2) x 3.14 x L

	#	L (ft)	W (ft)	H (ft)		
Vert. storage tank (cyl)	0	16.0	21.0	3.0	=	- ft^3
	0	-	-	3.0	=	- ft^3
	0	-	-	3.0	=	- ft^3
	0	-	-	3.0	=	- ft^3
	0	-	-	3.0	=	- ft^3
			Total ft^3 Displacement		=	- ft^3

-	ft^3	x	7.48	gal/ft^3	x	1 bbl/42 gal		=	- bbl
						Displacement Total		=	- bbl

Net Containment Capacity =	6,946	bbl	-	-	bbl	=	6,946	bbl

(3) Calculate Rainfall into Containment

Rainfall = Total Containment Area x Potential Inches of Rainfall (24-hr, 25-year storm event).

13,000	ft^2		x	4.75	in.	x 1 ft/12 in		=	5,146 ft^3
5,146	ft^3	x	7.48	gal/ft^3	x	1 bbl/42 gal		=	916 bbl

(4) Calculation Containment Adequacy

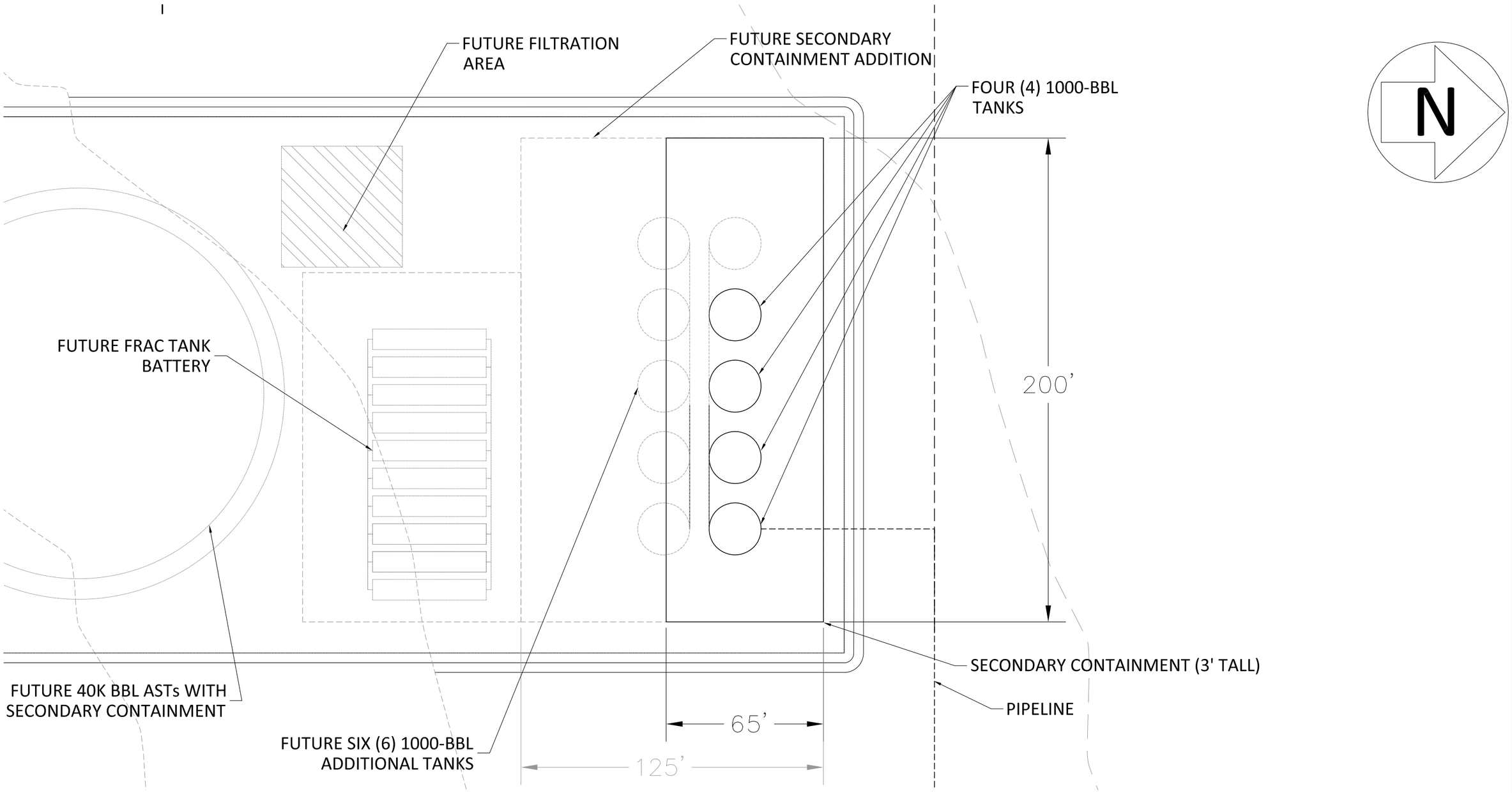
Safety Factor of 1.0 equates to adequate secondary containment
with 24-hr, 25-year rainfall event

Safety Factor = Net Containment Capacity ÷ (Single Largest Tank + Rainfall Event)

6,946	bbl	/ (	4,000	bbl	+	916	bbl)	=	**1.41**

Capacity Percentage = 6,946 bbls / 4,000 bbls = 174%

Note: A Safety Factor of 1.0 equates to the secondary containment structure's capacity to completely contain a spill from the single largest tank with an additional factor for rainwater from a 24-hour, 25-year rain event. Any number greater than 1.0 is an additional level of safety beyond the minimal requirement. *Rainfall Reference:* USGS. 2004. Atlas of Depth-Duration Frequency of Precipitation Annual Maxima for Texas. Scientifc Investigations Report 2004-5041.



REVISIONS				
No.	DATE	DESCRIPTION	DRAWN	CHKD

EOR	DRAWN
JDA	GJJ
PM	CHECKED
JDA	JDA

LANDES

PRODUCED WATER RECYCLING FACILITY CONCEPTUAL SITE LAYOUT

PREPARED FOR:

SOLARIS WATER MIDSTREAM

PREPARED BY:

ALL CONSULTING
GOVERNMENT RELATIONS - ENERGY - PLANNING - TECHNOLOGY
ENGINEERING - ENVIRONMENTAL

1718 SOUTH CHEYENNE AVE, TULSA, OK 74119
PHONE: 918.382.7581
WWW.ALL-LLC.COM

PN #1680-REC.04

JULY 2018

C1

APPENDIX B

STANDARD INCIDENT REPORT FORMS

- SPILL LEAK REPORT FORM
- NEW MEXICO EMNR FORM C-141

SPILL/LEAK REPORT FORM

SPILL FORM					
Field Name:					
Facility Name:		**On Lease Facility:**	❑ Yes	❑ No	
Legal Description:	Section:	Township:	N	Range:	W
Lease:					
Surface Owner:					
County:					
Date and Time:	_____, 20__	Time	❑ AM	❑ PM	
Weather:	Temp (°F):	Skies:	Wind Speed (MPH):	Wind Direction:	
Source:	❑ Emulsion	❑ Oil	❑ Produced Water	❑ Other:	
Nature and Cause of Incident:					
Environmental Impact (attach site plan with spill location(s) shown):					
BBLs/Oil Spilled:					
BBLs/Water Spilled:					
Mcf of Gas Lost:					
BBLs/Oil Recovered:					
BBLs/Water Recovered:					
Cleanup Action Taken:					
Equipment Involved:					

LEAK FORM					
Location:	Latitude:		Longitude:		
Source of Leak:	❑ Internal Corrosion	❑ External Corrosion	❑ Equipment Failure	❑ Other:	
Leak Occurred:	Feet	From:			
Repair Cost:	$	**Cleanup Cost:**	$	**Completed by**	

AGENCY NOTIFICATION LIST	**Jurisdiction**	**Agency**	**Date/Time**	**Report Number**	**Contact Name**
	New Mexico:	**NMOCD**			
		NMED			
		LEPC			
		NMDOT			
	Federal:	**NRC**			
		EPA			
		BLM			

Reported by: _____ **Approved by:** _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR ☐ Initial Report ☐ Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name	Facility Type

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name:	Approved by Environmental Specialist:
Title:	Approval Date: / Expiration Date:
E-mail Address:	Conditions of Approval: / Attached ☐
Date: / Phone:	

Attach Additional Sheets If Necessary

APPENDIX C

U.S. EPA 40 CFR 112 SPCC PLAN CROSS-REFERENCE

CROSS-REFERENCE

40 CFR § 112	Brief Description	Section
112.1	General Applicability	---
a	This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation related onshore and offshore activities into or upon the navigable waters of the United States…	---
b	…applies to any owner or operator of a non-transportation related…facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using or consuming oil and oil products…	---
b(1)	Any aboveground container…	---
b(2)	Any completely buried tank…	---
b(3)	Any container used for stand-by storage…	---
b(4)	Any "bunkered tank" or "partially buried tank"…	---
c	…departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.	n/a
d	…this part does not apply to:	---
d(1)(i)	Any onshore or offshore facility that due to its location, could not reasonably be expected to have a discharge as described in (b)…	§ 1.5
d(1)(ii)	Any equipment, or operation of a vessel or transportation-related…facility which is subject to the authority and control of the U.S. Department of Transportation	n/a
d(1)(iii)	Any equipment, or operation of a vessel or transportation-related…facility which is subject to control of the U.S. DOT or the U.S. Department of Interior as defined in the Memorandum of Understanding…dated November 8, 1993	n/a
d(2)	Any facility which, although otherwise subject to the jurisdiction of EPA, meets both of the following requirements	---
d(2)(i)	Completely buried storage capacity of the facility is 42,000 gallons or less of oil…	§ 1.5
d(2)(ii)	The aggregate aboveground storage capacity of the facility is 1,320 gallons or less or oil…only containers of oil with a capacity of 55 gallons or greater are counted.	§ 1.5
d(3)	Any offshore oil drilling, production, or workover facility…	n/a
d(4)	Any completely buried storage tank, and connected underground piping, underground ancillary equipment, and containment systems, that is subject to all the technical requirements of part 280 of this chapter….	n/a
d(5)	Any container with a storage capacity of less than 55 gallons of oil.	§ 1.5
d(6)	Any facility or part thereof used exclusively for wastewater treatment…	n/a
112.2	Definitions	---
112.3	Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plan:	---
a, b, c	Owners or operators ... could reasonably be expected to discharge oil in harmful quantities ... must prepare a plan in accordance with 112.7 ...	§1.5
d	A licensed Professional Engineer must review and certify a Plan for it to be effective…	Certification Page, §1.4
e	… maintain a complete copy of the Plan at such facility if the facility is normally attended at least 4 hours per day, or at the nearest field office when facility is attended less than 4 hours per day …	§1.3
112.4	Amendment of Spill Prevention, Control, and Countermeasures Plan by Regional Administrator	---

40 CFR § 112	Brief Description	Section
a	Whenever an SPCC facility has (1) discharged more than 1,000 U.S. gallons of oil in a single discharge or (2) discharged more than 42 U.S. gallons of oil…in each of 2 discharges, within any 12-month period, the owner or operator of the facility must submit to the RA, within 60 days the facility becomes subject…8 different items of information, plus additional information pertinent to the Plan if the RA requests	§ 1.5
112.5	Amendment of Spill Prevention Control and Countermeasure Plan by owners or operators:	---
a	… must amend the SPCC Plan … whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil …	§1.4
b	must complete a review and evaluation of the SPCC Plan at least once every five years … must amend the SPCC Plan within six months of the review ...	§1.4
c	No technical amendment to an SPCC plan will be effective … unless it has been certified by a Professional Engineer	§1.4 Review Page
112.7	Guidelines for the preparation and implementation of the Spill Prevention Control and Countermeasures Plan	---
	The SPCC Plan must be a carefully thought out plan, prepared in accordance with good engineering practices, current industry standards, and which has the full approval of management ...	Certification Page; Management Approval Page
	If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items must be discussed in separate paragraphs, and the details of installation and operational start-up must be explained separately.	---
	The complete SPCC plan must follow the sequence outlined below: …	Appendix C
a(1)	…discussion of facilities conformance with the requirements listed…	---
a(2)	…Your Plan may deviate from the requirements…except the secondary containment requirements…if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure…	---
a(3)	Describe in your Plan the physical layout of the facility and include a facility diagram…the facility diagram must also include all transfer stations and connecting pipes…and should include:…	Appendix A
a(3)(i)	The type of oil in each container and its storage capacity…	Appendix A
a(3)(ii)	Discharge prevention measures…	§ 4.1, §7.0
a(3)(iii)	Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of discharge.	§ 5.0, §6.2
a(3)(iv)	Countermeasures for discharge discovery, response, and cleanup…	§ 3.0
a(3)(v)	Methods for disposal of recovered materials	§ 3.0
a(3)(vi)	Contact list and phone numbers for the facility response coordinator…	**Table 2.1**
a(4)	…provide information and procedures in you Plan to enable a person reporting a discharge…	§ 2.1
a(5)	…organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material…	§ 3.0
b	Where experience indicates a reasonable potential for equipment failure … the plan must include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.	Appendix A

40 CFR § 112	Brief Description	Section
c	Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course must be provided. One of the following preventive systems or its equivalent must be used as a minimum:	---
c(1)	Onshore facilities	§5.1, 5.2, Appendix A
c(2)	Offshore facilities	n/a
d	When it is determined that the installation of structures or equipment listed in 112.7(c) … is not practicable from any onshore or offshore facility, the owner or operator must clearly demonstrate such impracticability and provide the following:	---
d(1)	A strong oil spill contingency plan following … 40 CFR § 109	SPCC Plan
d(2)	A written commitment of manpower, equipment, and materials required to expeditiously control and remove any harmful quantity of oil discharged	Management Approval Page
e	Inspections, tests, and records … in accordance with written procedures developed for the facility … made part of the SPCC Plan and maintained for a period of three years.	§4.2, §6.3 §7.1, §7.2
f	Personnel, training, and spill prevention procedures	---
f(1)	… properly instruct personnel in the operation and maintenance of equipment to prevent the discharges of oil …	§4.1
f(2)	… designated person who is accountable for oil spill prevention …	Certification Page
f(3)	… schedule and conduct spill prevention briefings … highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.	§4.1
g	Security (excluding oil production facilities)	---
g(1)	… fully fenced … entrance gates must be locked and/or guarded …	n/a
g(2)	… master flow and drain valves and any other valves that will permit direct outward flow … must be securely locked in the closed position when in non-operating or non-standby status.	n/a
g(3)	… starter control on all oil pumps must be locked in the off position or located at a site accessible only to authorized personnel …	n/a
g(4)	… loading/unloading connections of oil pipelines must be securely capped or blank-flanged when not in service or standby service for an extended time …	n/a
g(5)	Facility lighting must be commensurate with the type and location of the facility. Consideration must be given to: (i) Discovery of spills occurring during hours of darkness … (ii) Prevention of spills occurring through acts of vandalism.	n/a
h	Facility tank car and tank truck loading/unloading rack (onshore)	---
h(1)	Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system must be used … designed to hold at least maximum capacity of any single compartment of a tank car or tank truck …	§ 8.0
h(2)	An interlocked warning light or physical barrier system, or warning signs, must be provided in loading/unloading areas to prevent vehicular traffic departure before complete disconnect of flexible or fixed transfer lines.	§ 8.0
h(3)	Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles must be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.	§ 8.0
i	If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure…or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge…	§ 6.3

40 CFR § 112	Brief Description	Section
j	…discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.	§ 2.2
§112.8 a	In addition to … 112.7(c) … must include a complete discussion of conformance with the following … (or, if more stringent, with State rules, regulations, and guidelines):	---
b	Facility drainage (onshore): (excluding production facilities):	---
b(1)	Drainage from diked storage areas must be restrained by valves or other positive means to prevent a spill … into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, ... must be manually activated and the condition of the accumulation must be examined before starting ...	n/a
b(2)	Flapper-type drain valves must not be used to drain diked areas. Valves used for the drainage of diked areas must … be of manual, open-and-closed design. When plant drainage drains directly into water courses …, retained storm water must be inspected as provided in ... e(2)(iii)(B, C, and D) before drainage.	n/a
b(3)	Plant drainage systems from undiked areas must, if possible, flow into ponds, lagoons, or catchment basins, designed to retain oil or return it to the facility. Catchment basins must not be located in areas subject to periodic flooding.	n/a
b(4)	If … not engineered as above, the final discharge of all in-plant ditches must be equipped with a diversion system that could … return the oil to the plant.	n/a
b(5)	Where drainage water is treated in more than one treatment unit, natural hydraulic flow must be used. If pumps …, two lift pumps must be provided, and at least one of the pumps must be permanently installed when such treatment is continuous … whatever techniques are used, facility drainage systems must be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error ...	n/a
c	Bulk storage tanks (onshore): (excluding production facilities)	---
c(1)	No tanks must be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage …	n/a
c(2)	All bulk storage tank installations must be constructed so that a secondary means of containment is provided for the entire contents of that largest single tank plus sufficient freeboard to allow for precipitation. Diked areas must be sufficiently impervious to contain spilled oil. An alternative system could consist of a complete drainage trench ...	See Specific Calculations in Appendix A
c(3)	Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable, if:	---
c(3)(i)	The bypass valve is normally sealed closed.	n/a
c(3)(ii)	Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge was defined in 40 CFR § 110.	n/a
c(3)(iii)	The bypass valve is opened, and resealed following drainage under responsible supervision.	n/a
c(3)(iv)	Adequate records are kept of such events.	n/a
c(4)	Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection…You must regularly leak test such completely buried metallic storage tanks.	n/a
c(5)	Partially buried metallic tanks for the storage of oil must be avoided, unless the buried section of the shell is adequately coated …	n/a

40 CFR § 112	Brief Description	Section
c(6)	Aboveground tanks must be subject to periodic integrity testing taking into account tank design … Comparison records must be kept where appropriate, and tank supports and foundations must be included … the outside of the tank must frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.	n/a
c(7)	To control leakage through defective internal heating coils, by monitoring the steam return and exhaust lines for contamination…	---
c(8)	Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices…	---
c(8)(i)	High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants, an audible air vent may suffice.	n/a
c(8)(ii)	… high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.	n/a
c(8)(iii)	Direct audible or code signal communication between the tank gauger and the pumping station.	n/a
c(8)(iv)	A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.	n/a
c(8)(v)	Liquid level sensing devices must be regularly tested to insure proper operation.	n/a
c(9)	Plant effluents which are discharged into navigable waters must have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.	n/a
c(10)	Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas must be promptly corrected.	n/a
c(11)	Mobile or portable oil storage tanks (onshore) must be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment … must be furnished for the largest single compartment or tank. These facilities must be located where they will not be subject to periodic flooding or washout.	n/a
d	Facility transfer operations, pumping, and in-plant process (onshore): (excluding production facilities)	---
d(1)	Buried piping that is installed or replaced on or after August 16, 2002 must have a protective wrapping and coating and must be cathodically protected if soil conditions warrant. If a section of buried line is exposed … carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action must be taken ...	n/a
d(2)	When a pipeline is not in service or in standby service for an extended time the terminal connection at the transfer point must be capped or blank-flanged, and marked as to origin.	n/a
d(3)	Pipe supports must be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.	n/a
d(4)	All aboveground valves and pipelines must be subjected to regular examinations by operating personnel at which time the general condition … must be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.	n/a
d(5)	Vehicular traffic granted entry into the facility must be warned verbally or by appropriate signs to be sure that the vehicle … will not endanger aboveground piping.	n/a
§ 112.9	Oil production facilities (onshore)	---

40 CFR § 112	Brief Description	Section
a	The owner or operator must meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures…	§1.0
b	Oil production facilities (onshore): drainage	---
b(1)	At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent …must have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area must be inspected as provided in § 112.8 (c)(3)(ii), (iii), and (iv). Accumulated oil on the rainwater must be picked up and returned to storage or disposed of in accordance with approved methods.	§5.1
b(2)	Field drainage ditches, road ditches, and oil traps, sumps or skimmers … must be inspected at regularly scheduled intervals for accumulation of oil that may have escaped …	§5.2
c	Oil production facility (onshore): bulk storage tanks	---
c(1)	No tank must be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.	§6.1
c(2)	All tank Well Site and central treating plant installations must be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternative systems … outlined in 112.7(c)(1). Drainage from undiked areas must be safely confined in a catchment basin or holding pond.	§6.3, Appendix A
c(3)	All tanks containing oil must be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis . . . must include the foundation and supports of tanks that are above the surface of the ground.	§6.4, Appendix F
c(4)	New and old tank installations must … be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration must be given to providing one or more of the following:	---
c(4)(i)	Adequate tank capacity to assure that a tank will not overfill must a pumper/gauger be delayed in making his regular rounds.	§6.1
c(4)(ii)	Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.	§6.1
c(4)(iii)	Adequate vacuum protection to prevent tank collapse during a pipeline run.	§6.1
c(4)(iv)	High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.	§6.1
d	Facility transfer operations, oil production facility (onshore):	---
d(1)	All above ground valves and pipelines must be examined periodically on a scheduled basis for general condition of items …	§7.1
d(2)	Salt water (oil field brine) disposal facilities must be examined often … to detect possible system upsets that could cause an oil discharge.	§7.2
d(3)	… must have a program of flowline maintenance to prevent spills … must include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.	§7.3
§ 112.10	Oil drilling and workover facilities (onshore)	---
b	… must be positioned or located so as to prevent spilled oil from reaching navigable waters.	§7.4
c	… catchment basins or diversion structures may be necessary to intercept and contain spills …	§7.4
d	Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system must be installed … must be in accordance with State regulatory agency requirements.	§7.4
§ 112.11	Oil drilling, production, or workover facilities (offshore)	---

40 CFR § 112	Brief Description	Section
a	The owner or operator must meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures…	---
b	Oil drainage collection equipment must be used to prevent and control small oil spillage … Drains on the facility must be controlled and directed toward a central collection sump or equivalent collection system … Where drains and sumps are not practicable, oil contained in collection equipment must be removed as often as necessary to prevent overflow.	n/a
c	For facilities employing a sump system, sump and drains must be adequately sized and a spare pump or equivalent method must be available … A regular scheduled preventive maintenance inspection and testing program must be employed … Redundant automatic sump pumps and control devices may be required ...	n/a
d	In areas where separators and treaters are equipped with dump valves … the facility must be specially equipped to prevent the escape of oil	n/a
d(1)	Extend the flare line to a diked area…	n/a
d(2)	Equip the separator with a high liquid level sensor that will automatically shut in wells producing to a separator…	n/a
d(3)	Install parallel redundant dump valves.	n/a
e	Atmospheric storage or surge tanks must be equipped with high liquid level sensing devices or other acceptable alternatives …	n/a
f	Pressure tanks must be equipped with high and low pressure sensing devices to activate an alarm … control the flow … other acceptable alternatives …	n/a
g	Tanks must be equipped with suitable corrosion protection.	n/a
h	A written procedure for inspecting and testing pollution prevention equipment and systems … part of the SPCC Plan.	n/a
i	Testing and inspection of the pollution prevention equipment and systems at the facility must be conducted … on a schedule periodic basis …	n/a
j	Surface and subsurface well shut-in valves and devices in use at the facility must be sufficiently described to determine method of activation or control … Detailed records for each well … must be kept …	n/a
k	Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly ... must be installed … in accordance with State regulatory agency requirements.	n/a
l	All manifolds (headers) must be equipped with check valves on individual flowlines.	n/a
m	If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves … the flowlines must be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system ...	n/a
n	All pipelines appurtenant to the facility must be protected from corrosion … must be discussed.	n/a
o	Sub-marine pipelines appurtenant to the facility must be adequately protected against environmental stresses …	n/a
p	Sub-marine pipelines appurtenant to the facility must be in good operating condition at all times and inspected on a scheduled periodic basis for failures … documented and maintained at the facility.	n/a

APPENDIX D

SAMPLE SPCC TRAINING RECORD

This form (or a similar form) is retained on file in the Facility Office for three (3) years.

SPCC Training Record

Location: Date: Time:

Instructor:

Summary of SPCC Issues Discussed: _____
_____
_____
_____
_____

ATTENDEES

Name	Company	Phone

APPENDIX E

SAMPLE VALVE/PIPELINE & WELLHEADS INSPECTION CHECKLIST

This form (or a similar form) is retained on file in the Facility Office for three (3) years.

VALVES, PIPELINE & WELLHEADS INSPECTION CHECKLIST

All of the following questions should be answered by circling YES or NO. If NO, then a discussion of the corrective actions shall be included. If not applicable, enter NA.

Facility/Area: _____ Date: _____

Inspector Initials

1. Valve Glands and bodies are in good condition YES/NO_____
If NO, corrective action taken:_____
_____
_____

2. Flange joints free from leaks YES/NO_____
If NO, corrective action taken:_____
_____
_____

3. Drip pan drains are in working condition YES/NO_____
If NO, corrective action taken:_____
_____
_____

4. Wellhead Hi/Lo pressure shutdowns operating YES/NO_____
If NO, corrective action taken:_____
_____
_____

5. Well polish rod stuffing boxes free from leaks YES/NO_____
If NO, corrective action taken:_____
_____

Comments:_____
_____
_____
_____
_____
_____

APPENDIX F

SAMPLE TANK INSPECTION PROCEDURES

This form (or a similar form) is retained on file in the Facility Office for three (3) years.

TANK INSPECTION PROCEDURES

All of the following questions should be answered by circling YES or NO. If NO, then a discussion of the corrective actions shall be included. If not applicable, enter NA.

Facility/Area: _____ Date: _____

TANKS **Inspector Initials**

1. Seams have integrity (no visible leaks) YES/NO_____
If NO, corrective action taken:_____

2. Equalizer valves are in correct operating position (as applicable) YES/NO_____
If NO, corrective action taken:_____

3. Hi/Lo level alarms/shutdowns are operable (as applicable) YES/NO_____
If NO, corrective action taken:_____

4. Vacuum protection is unobstructed (as applicable) YES/NO_____
If NO, corrective action taken:_____

5. Tank hatches are latched closed YES/NO_____
If NO, corrective action taken:_____

6. Tank foundations and supports have integrity (as applicable) YES/NO_____
If NO, corrective action taken:_____

TANK INSPECTION PROCEDURES (Cont'd)

7. Tank(s) show no signs of leaks YES/NO_____
If NO, corrective action taken:_____

8. Visual inspection for external tank corrosion was performed YES/NO_____
If NO, corrective action taken:_____

9. Integrity test Next test date:_____

If integrity test FAILS, corrective action taken_____

Comments:_____

APPENDIX G

SAMPLE CONTAINMENT AREA DRAINAGE

This form (or a similar form) is retained on file in the Facility Office for three (3) years.

FLOWLINE INSPECTION CHECKLIST

All of the following questions should be answered by circling YES or NO. If NO, then a discussion of the corrective actions shall be included. If not applicable, enter NA.

Facility/Area: _____ Date: _____

Inspector Initials

1. Aboveground pipe supports adequately supporting lines YES/NO_____
If NO, corrective action taken:_____

2. External corrosion protection adequate YES/NO_____
If NO, corrective action taken:_____

3. Internal corrosion protection working (as applicable) YES/NO_____
If NO, corrective action taken:_____

Comments: _____

APPENDIX H

GLOSSARY OF ABBREVIATIONS

Glossary of Abbreviations

API	American Petroleum Institute
Bbl	barrel
BLM	US Bureau of Land Management
BOP	Blowout prevention
CFR	Code of Federal Regulations
DOC	U.S. Department of Commerce
DOT	Department of Transportation
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESD	Emergency Shutdown
FR	Fire Resistant
FTPE	Flow-through process equipment
gal	Gallon
LEPC	Local Emergency Planning Committee (County-Specific Office of Emergency Management)
NMED	New Mexico Environmental Department
NMOCD	New Mexico Oil Conservation Division
NRC	National Response Center
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
RA	Regional Administrator
Solaris	Solaris Water Midstream, LLC
SPCC	Spill Prevention, Control, and Countermeasure
T&E	Threatened and Endangered
NMDOT	New Mexico Department of Transportation

APPENDIX I

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

(As excerpted from Attachment C-II from 40 CFR 112.)

FACILITY NAME: **Landes Recycling Facility**
FACILITY ADDRESSES: **Eddy County, New Mexico**

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?

YES_____ NO___X_____

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?

YES_____ NO___X_____

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 appropriate formula in Attachment C-III to this appendix or a comparable formula1) 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 III to DOC/NOAA's "Guidance for Facility and Vessel Response Plan: Fish and Wildlife Sensitive Environments" (see Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan.

YES_____ NO___X_____

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 in Attachment C-III to this appendix or a comparable formula1) such that a discharge from the facility would shut down a public drinking water intake2?

YES_____ NO___X_____

5. Does the Facility have a total oil storage capacity greater than or equal to 1 million gallons and has the Facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

YES_____ NO___X_____

CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS RESPONSIBLE FOR OBTAINING THIS INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Signature:_____ **Title:** Sr. Vice President - Operations

Name: Stephen Martinez **Date:** 8/13/2012
(PLEASE TYPE OR PRINT)

NOTE: This certificate applies to each of the facilities listed in Appendix A.

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

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).