U. S. DEPARTMENT OF ENERGY

STRATEGIC PETROLEUM RESERVE
PROJECT MANAGEMENT OFFICE
New Orleans, La.

PAGE CHANGE

SPRPMO O 416.1C

APPROVED: 3/19/19

SUBJECT: SPRPMO PETROLEUM ACCOUNTABILITY ORDER

1. PURPOSE. To incorporate document update revisions to the Strategic Petroleum Reserve Project Management Office (SPRPMO) O 416.1A in accordance with the Department of Energy (DOE) O 251.1C, "Departmental Directives Program."

2. EXPLANATION OF CHANGES.

   a. SPRPMO Petroleum Accountability Order, Page 1, Section 4(4). "REQUIREMENTS."

      (1) REQUIREMENTS, Page 1, Section 4(4) Monthly Reconciliation of Inventory Records– Deleted "accountable inventory." from section.

      (2) REQUIREMENTS, Page 1, Section 4(4) Monthly Reconciliation of Inventory Records – Added "and or gains." from section.

   b. Appendix 1, Page 18, Section 6. "DETERMINATION OF QUANTITY."

      (1) Appendix 1, Page 18, Section 6.a. – Add "Note: Terminalling contracts for receipt and storage of SPR petroleum normally provide for payment of throughput and transportation based on GSV **unless otherwise stated in the terminalling agreement.** It will, therefore, be necessary to show the GSV on the related shipping/receiving documents in addition to the NSV." from section.

      (2) Appendix 1, Page 20, Section 6.h.(1) – Deleted "Bayou Choctaw" and replaced with St. James from section.

      (3) Appendix 1, Page 21, Section 6.h.(10) – Deleted "measurements (API Gravity, Sulfur, and Sediment and Water" from section.

      (4) Appendix 1, Page 23, Section 6.i.(3) – Deleted "The API Gravity, Sediment and Water, and Sulfur content will be performed by the DOE M&O Contractor third party inspector" and "DD Form 250 Quantity volumes shall be based on the physical thru-put barrels measured at the Dock Meter, only while oil is being delivered to the Bryan Mound site. Vessel deliveries through Freeport Terminal #2

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INITIATED BY: APM for Maintenance and Operations, Crude Oil, Drawdown Readiness and Cavern Integrity Division

must displace an initial linefill of approximately 3,000 barrels prior to delivery to the Bryan Mound site. These initial linefill barrels will be excluded from the DD 250. After completion of the tanker discharge, the remaining 3,000 barrels in the terminal line will be displaced to the Bryan Mound site by the following vessel at the terminal, with these barrels being included on the DD Form 250. Only those barrels metered by the Freeport Terminal #2 dock meters and delivered to the Bryan Mound site shall be used for the custody volume on the DD 250 delivery document" from section.

(5) Appendix 1, Page 24, Section 6.i.(8) – Added "tank gauging and tank samples" Deleted "Beaumont Terminal delivery shore tank gauges and tank composite sample" from section.

(6) Appendix 1, Page 25, Section 6.i.(9) – Deleted "Shell 20 inch designated" and "DOE Big Hill" and Added "Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the down-gauge on the Nederland shore tank and quality based or manual grab samples taken at the DOE inline sampler."

(7) Appendix 1, Page 25, Section 6.j.(1) – Deleted "Due to measurement limitations, quantity will be based on historical "line capacity" volume as stated by Shell and Placid. Note: measurement totals taken at the St. James meter will be used only as basis with pipeline volumes blacked-out (paper-split) for "line exchange" determinations" from section.

(8) Appendix 1, Page 26, Section 6.j.(3) – Added "Custody transfer quantity and quality measurements will be the Bayou Choctaw meters and in-line sampler. Secondary quantity will be based on Placid shore tank (if static) or Shell unmanned meter. Secondary quality will be based on grab samples taken at the DOE Bayou Choctaw site." to section.

(9) Appendix 1, Page 27, Section 7.a – Changed five to six.

c. Appendix 3, Page 65, Section 5.b.c "SITE SPECIFIC PROCEDURES FOR RECEIPT OF SPR PETROLEUM."

(1) Section 5.b.c – <u>Month End Procedures for Sun Marine Terminal</u> changes made for how reconciliations will be done and what

information is collected as well as settlement guidelines in regards to inventory gains and or losses.

d. Appendix 4, Page 72, "GENERAL PROCEDURES FOR DRAWDOWN"

(1) Section 3.b.4 – New section added.

(2) Section 3.b.5 – New section added.

(3) Section 6, Quality and Quantity Determination, Figure 4-2 and 4-3 Page 78-84 – Updated names and locations of custody and quantity measurement.

e. Appendix 6, "PREPARATION OF DD FORM 250"

(1) Section 4, Corrections to DD Form 250 – added language to address administrative changes best practice.

f. Appendix 10, "PREPARATION OF SPRPMO F-416.1-3"

(1) Section 2, Specific Instructions – updated block information in regards to completing a CODR as of fiscal year 2019.

3. FILING INSTRUCTIONS.

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[redacted]
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Project Manager
Strategic Petroleum Reserve

ORDER

Approved: 10/01/15

SPRPMO PETROLEUM ACCOUNTABILITY ORDER

U.S. DEPARTMENT OF ENERGY
Strategic Petroleum Reserve
Project Management Office

DISTRIBUTION: All SPRPMO Employees

INITIATED BY: APM for Maintenance and Operations, Crude Oil, Drawdown Readiness and Cavern Integrity Division

RESERVED

SPRPMO PETROLEUM ACCOUNTABILITY ORDER

1. PURPOSE. This Order establishes internal guidelines for Strategic Petroleum Reserve Project Management Office (SPRPMO) in providing detailed accountability and inventory control procedures for measuring and documenting crude oil inventories under custody and/or title of the SPRPMO.

2. CANCELLATION. This Order cancels SPRPMO O 416.1A, Petroleum Accountability Order, dated July 16, 2013.

   Cancellation of a directive does not, by itself, modify or otherwise affect any contractual or regulatory obligation to comply with the directive. Contractor Requirements Documents (CRDs) that have been incorporated into a contract remain in effect throughout the term of the contract unless and until the contract or regulatory commitment is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.

3. APPLICABILITY.

   a. Departmental Applicability. This Order applies to all organizational elements of the SPR involved in petroleum accountability which includes; contractors, subcontractors, and other agencies performing work for the SPR via a contract, Interagency Agreement (IAA), or Memorandum of Understanding (MOU).

   b. Department of Energy (DOE) Contractors. Except for the exclusions in Paragraph 3c, the CRD, Attachment 1, sets forth requirements of this Order that will apply to contracts that include the CRD. This Order applies to the Management and Operating (M&O) contractor.

   c. Exclusions. None.

4. REQUIREMENTS. This Order provides information on the policy, accountability and inventory control procedures for measuring, recording, documenting and reporting crude oil inventories under custody and/or title of the SPR.

   a. Petroleum Accountability.

      The SPRPMO-approved oil accountability and inventory control procedures shall be used for measuring and documenting quantity, and the gains and losses of oil under SPR custody at all custody/title transfer points for acquisition, transportation, transshipment, terminalling, and storage site/complex receipt, operational tests involving oil movement, drawdown, exchange and sale.

      Measurement of crude oil received into the SPR system shall be required at the point of purchase, upon receipt at the receiving terminal, and upon receipt at the storage site. For drawdown, measurement shall be required out of the storage site,

upon receipt at the receiving terminal, and upon terminal transfer to individual buyer-arranged transport (ships, barges, pipeline, or leased tankage) where that shall be the quantity of record for the sale.

(1) Quantitative Measurements

All quantitative measuring procedures and equipment will be consistent with established industry practices and American Petroleum Institute (API)/American Society of Testing Materials (ASTM) standards which will achieve the greatest degree of reliability and accuracy as defined in the latest API/ASTM standards.

(2) Net Standard Volume/Gross Standard Volume

Accountability for oil movements and balances will be documented, recorded, and reported as the Net Standard Volume (NSV) in barrels of 42 U.S. gallons. Documentation and supplemental records in Gross Standard Volume (GSV) will be maintained where contractually necessary to determine terminal throughput and transportation volumes.

(3) Operating Losses

Non-determinable operating oil losses and gains in excess of 0.40 percent will be immediately investigated and documented as to probable cause for the entire variance. Investigations of determinable losses will be as directed by the Team Leader of the Crude Oil Management Team (see 5.b(3) below) and will be carried out to the extent necessary to determine probable cause of loss. All documentation on non-determinable operational variances in excess of 0.40 percent will be investigated immediately and results forwarded to the M&O contractor's Crude Oil Accountant. Unexplainable excessive variances may be subject to a Crude Oil Accountability Review Board (COARB).

All determinable losses in excess of 100 net barrels will be documented and submitted by the Crude Oil Management Team to the COARB appointed by the Project Manager. The COARB may appoint a Surveying Officer or Survey Board to investigate the total variance or loss. The investigator will obtain and record statements and signatures on Page 1 of the DD Form 200, Financial Liability Investigation of Property Loss, or other appropriate document prepared by the M&O contractor's Site Director. The findings and required signatures will be entered on the DD Form 200, which will be submitted to the COARB. The Board will review the findings and make a recommendation to the Project Manager who will determine final disposition of the case, affix his signature, and send the form to the Crude Oil Management Team for recording. A sample of the DD Form 200, Financial Liability Investigation of Property

Loss, is shown in Appendix 7. This form is used by the COARB and the Project Manager to authorize formal losses, as appropriate, for unexplainable excessive operating variances. Investigation findings and recommendations shall be approved by the Assistant Project Manager (APM) for Maintenance and Operations who serves as the Chairman of the COARB.

Note: Determinable Losses as a result of scheduled maintenance such as tank cleaning do not require convening of the COARB but do require approval of the APM for Maintenance and Operations or his designee for quantities not to exceed 500 barrels per action or a collective quantity not to exceed 2,000 barrels for the entire event. Quantities in excess of these limits require notification to the Project Manager with the exception of degas losses (see Appendix 1, 7.g).

(4) Monthly Reconciliation of Inventory Records

On a monthly basis, there will be a reconciliation of inventory records reflecting receipts, deliveries, transfers, losses, and or gains. Losses or gains observed will be accurately defined for each phase of operation and excessive losses or gains will be investigated. Excessive operational crude oil variances, determinable losses in excess of 100 net barrels, and oil that has become contaminated and dropped from the inventory in excess of 100 barrels will be documented on a DD Form 200, Financial Liability Investigation of Property Loss, and accompanied by all available documented information as to the circumstances.

(5) Authorized Forms

Department of Defense (DOD) Forms DD 250 (pipeline shipments) and 250-1 (tanker/barge shipments) and SPR Crude Oil Delivery Reports (CODRs) will be used to document all oil movements which affect either the title, custody, quantity, or storage location of SPR oil inventories.

(6) Document Retention

All SPR site crude oil accountability documents generated as a result of a shipment, delivery, exchange or sale will be retained in working files until each annual audit is closed out, which is approximately 1-year after the audit period. At that time, the site working file copies may be destroyed.

(7) Claims

Where applicable, claims for reimbursement of oil losses will be initiated and pursued as soon as practicable following the loss, as provided for in

the appropriate contracts, agreements, tanker charter parties, or pipeline tariffs.

(8) Upgrade/Downgrade Authorization

When a scheduled DOE crude oil movement involves a planned upgrade/downgrade (sweet/sour) or commingling of oil grades, DOE must provide authorization prior to the movement per request from the M&O Contractor (See Appendix 1).

(9) Naval Petroleum Reserve (NPR) Crude Oil Stored in the SPR
For the purposes of the SPR, caverns containing NPR crude oil shall be considered to be sweet, even though their composite sulfur content may exceed 0.5 percent.

b. Procurement of SPR Petroleum.

The SPR may acquire petroleum through the IAA with the U.S. DOD Defense Energy Support Center (DESC), or through direct DOE procurement actions.

c. Terminalling and Other Services.

Terminalling services for receipt, storage, and shipment of SPR petroleum through commercial terminals and pipelines, and services for operation of DOE SPR-owned terminals and storage complexes will normally be arranged by the M&O contractor. Accountability procedures for SPR petroleum inventories will be included in all contracts, IAAs, and MOUs which involve procurement, transportation, handling, storage, and transshipment of SPR-owned petroleum. The APM for Maintenance and Operations is responsible for establishing and providing the accountability requirements and procedures for terminalling contracts to the Director, Acquisition and Sales Division, who is responsible for assuring that these requirements are made a part of each applicable contract.

5. ROLES AND RESPONSIBILITIES.

a. Headquarters Program Office.

The Deputy Assistant Secretary for Strategic Petroleum Reserve (DAS-SPR) reporting to the Assistant Secretary for Fossil Energy, has overall programmatic responsibility for ensuring that the goals and objectives of the Reserve are met. The SPR Headquarters organization, headed by the DAS-SPR, provides direction to the SPRPMO in New Orleans, on the development and issuance of SPR Program policy and guidance concerning oil accountability and inventory control.

b. Project Management Office.

Under the direction of the Project Manager, the SPRPMO carries out the day-to-day project activities, including management and operation of four oil storage sites in Texas and Louisiana. The DOE SPR-owned marine terminal in Louisiana is currently being leased out.

(1) The APM for Maintenance and Operations has overall responsibility for petroleum accountability and inventory control, which is delegated to the Director of Crude Oil, Drawdown Readiness, and Cavern Integrity Division. The APM for Maintenance and Operations serves as Chairman of the COARB.

(2) The Director, Crude Oil, Drawdown Readiness, and Cavern Integrity Division assign direct responsibility for petroleum accountability activities to the Division's Crude Oil Management Team.

(3) The Team Leader of the Crude Oil Management Team has responsibility for all petroleum accountability and inventory control activities, including procedure development and revision, reporting, and oversight of investigations of determinable losses to determine the probable cause of the loss. The SPR Inventory Management Specialist reports to the Team Leader and performs the following functions:

(a) Reviews and approves Crude Oil Delivery Reports (CODR form) for billing contractors.

(b) Approves distribution of the monthly Petroleum Inventory Report.

(c) Provides DOE Planning and Financial Management Division with required documents for invoicing.

(d) Approves distribution of the weekly EIA 801, 803, and 804 reports and the monthly EIA 813, 814, 815 reports and 856 Report.

(e) Reviews and approves the Year-End Crude Oil Inventory Report for distribution.

(f) Prepares written updates/changes to Accountability Orders, Procedures, and Processes.

(g) Reviews and approves changes to the Crude Oil Valuation and Tracking System (COVATS).

(h) Serves as Executive Secretary to the COARB to coordinate investigations of inventory losses and ensure approved disposition is documented and recorded accurately in the inventory system.

c. Oil Storage Complex.

(1) Senior Site Representative (SSR)

SSRs provide SPRPMO oversight of oil storage facilities. The SSRs report to the Director of the Site Operations Division within the APM, Maintenance and Operations organization.

SSR responsibilities include approving crude oil documentation, monitoring, reviewing, authorization and reporting of the adequacy of operations involving the receipt, shipment, storage, and reporting of crude oil movements and inventory balances. The SSR is also responsible for assuring the timeliness and accuracy of inventory documents generated by the M&O contractor. The SSR also concurs on crude oil variance investigations initiated by the M&O contractor and the Government Representative.

(2) M&O Contractor Site Directors

Operation and maintenance of the Government-owned SPR facilities is the responsibility of the respective M&O contractor Site Directors.

(3) Government Representative (GR)

The DOE M&O contractor has been directed to acquire the services of a commercial third-party inspection company/GR to provide oil inspection services, oil laboratory testing services, and SPR documentation coordination. Also included are oil transfer investigations, end of month inventory verifications, and other related miscellaneous services associated with the inspection, documentation, and reporting of custody oil transfers. The GR provides quality assurance and measurement verification of SPR crude oil received in the continental United States from tanker/barge loadings and discharges, offshore lightering, and pipeline and tank tenders. A GR is required for all bulk petroleum movements involving custody/title transfers, monthly tank inventories, drawdown support, exchange support, quantity/quality investigations of variances exceeding SPR criteria, and other services provided upon special request by the SPRPMO. The GR is also responsible for preparing documentation at the terminals to support DOE and provide sampling and testing support.

d. Intersite Transfers.

A meeting at the site will be conducted before and after each crude oil movement (all movements, both intersite and intrasite) and include the following personnel: DOE Senior Site Representative, M&O site personnel, i.e., Site Operations Manager, Accountability Clerk, and Laboratory Chemist, and GR. At this meeting, key operational people are identified, responsibilities are defined, communication procedures are arranged, and oil transfer procedures are reviewed to ensure a full understanding of all activities by everyone concerned.

(1) The pre and post meetings are to be conducted before each crude oil movement, not just intersite transfers.

(2) SPR management and M&O contractor conducts a meeting on site before and after each crude oil movement to include the following M&O personnel: Site Operations Manager, Accountability Clerk, and Laboratory Chemist."

(3) During the meetings, the approved procedures (fluid movement procedures) are reviewed. Attendees include, but are not limited to, the Site Operations Manager, Shift Supervisor, Control Room Operators, Field Operator, and Laboratory personnel if samples are to be taken. If the approved procedures are to be revised or new procedures are required, a procedure review meeting will be performed by the DOE SSR, Site Director, GR, Site Operations Manager, Site Engineer, Quality Assurance, Quality Control, and Environmental, Safety and Health to establish approved procedures.

(4) While the GR may not be required for all intrasite movements, they should still be notified of all meetings for both intersite and intrasite transfers.

6. REFERENCES.

a. SPRPMO O 414.1D, Quality Assurance Program (or current version).

b. SPRPMO O 413.3, Change 2, Strategic Petroleum Reserve Crude Oil Quality Program and Test Criteria (or current version).

c. Operating Annex F, Crude Oil Inventory Accountability, November 1984, to DOD, DOE Interagency Agreement, April 1977.

7. DEFINITIONS.

a. ACCOUNTABLE OFFICER. A DOE SPR employee required to assure that accurate recording of property transactions is accomplished and current records

pertaining thereto are maintained. (Accountability is concerned primarily with records, while responsibility is concerned primarily with custody, care, and safekeeping.)

b. BARREL. Standard unit of measurement of petroleum liquids consisting of 42 U.S. gallons at 60°F.

c. CUSTODY TRANSFER POINT. The point where custody of SPR petroleum passes from one responsible party to another, such as from a contract supplier to a carrier or from a carrier to an SPR terminal or site. Such a transfer is documented on a Form DD 250 or 250-1 to show names of both parties, a description of the petroleum (stream name and test results), and the volume in gross standard and net standard volume barrels at 60°F.

d. DRAWDOWN. The physical removal of crude oil from a cavern with subsequent distribution to a terminal for custody and/or title transfer. The final custody to the buyer is documented on a CODR SPRPMO F-416.1-3.

e. DRAWDOWN EXERCISE. A training exercise, either simulated or physical, designed to ascertain the readiness of existing SPR drawdown systems and of DOE and contractor personnel to execute a drawdown and sale with a minimum of 15 days advance notification.

f. INVENTORY LOSSES. Oil quantities lost incident to transfer, shipment, or storage which are either (1) determinable losses resulting from any identifiable cause or event such as contamination, fraud, spill, disaster or vessel inability to discharge, including pumpable quantities remaining on board (ROB); or (2) non-determinable operating losses not attributable to an identifiable cause or event (e.g., evaporation, tank clingage, or measurement inaccuracies).

g. QUALITY CONTROL. The planning, systematic management, and implementation of all actions involved in the inspection and verification of the characteristics and quantity of crude oil during its receipt, handling, transport, storage, and custody transfer. These actions include the sampling, analysis, metering, data recording, and reporting necessary to control the quality of the crude oil.

h. QUALITY ASSURANCE. The auditing of all actions required to ensure the quality of crude oil acquired, stored, and eventually sold by the United States Government.

i. RESPONSIBLE OFFICER. A DOE or contractor employee responsible for the proper custody, care, and safekeeping of property entrusted to his possession or under his supervision.

j. SCHEDULED MAINTENANCE OIL LOSSES. Any maintenance or cleaning process which may result in known or anticipated crude oil losses such as tank cleanings.

k. TANKAGE. Refers to bulk petroleum storage tanks. The following terms are particularly applicable to tankage:

(1) EXPANSION SPACE (VAPOR SPACE). Space at top of tank which is reserved for expansion of contents resulting from increases in temperature.

(2) INNAGE. The measured height of liquid in a tank or container as measured from the bottom of the tank to the top surface of the liquid.

(3) SHELL CAPACITY. The gross volumetric capacity of a petroleum storage tank as determined from tank calibration.

(4) TANK BOTTOMS. The quantity of petroleum below the suction manifold or draw-off line of a storage tank. This quantity is not available in normal operations and constitutes a portion of the non-operating inventory.

(5) ULLAGE (OR OUTAGE). The measured distance between the top surface of the liquid in a tank and the top of the container. The difference between the full (rated) capacity and the actual contents of a storage container. In tanks it is generally the difference between a reference mark and the surface of the liquid. It is important that some appreciable difference always exist in order to allow a free space for the expansion of the contents in case of a rise in temperature.

l. VOLUME MEASUREMENTS. All volumes shall be stated in barrels as defined herein. The following standard terminology as adopted by API will be used for volume determinations of petroleum in vessels and shore tanks:

(1) FREE WATER (FW). The measured volume of water present in a container which is not in suspension in the contained liquid. (See also Sediment and Water.)

(2) GROSS OBSERVED VOLUME (GOV). The total volume of all petroleum liquids, including Sediment and Water (S&W), but not FW, at observed temperature, gravity, and pressure.

(3) GROSS STANDARD VOLUME (GSV). The total volume of all petroleum liquids and S&W, excluding FW, corrected by the appropriate volume correction factor (VCF) for observed temperature and API gravity, relative density, or density to a standard temperature (i.e., 60°F or 15°C) and by the pressure and meter correction factors, if applicable.

(4) NET STANDARD VOLUME (NSV). The total volume of all petroleum liquids, excluding S&W and FW, corrected by the appropriate VCF for the observed temperature and API Gravity, relative density or density to a standard temperature (i.e., 60°F or 15°C) and by the meter and pressure correction factors, if applicable.

(5) SEDIMENT AND WATER (S&W). The non-hydrocarbon solid material and water in suspension in a petroleum liquid.

(6) TOTAL CALCULATED VOLUME (TCV). The total volume of all petroleum liquids and S&W, corrected by the appropriate VCF for the observed temperature and API Gravity, relative density, or density to a standard temperature (i.e., 60°F or 15°C), and by the meter and pressure factors, if applicable, and all FW measured at observed temperature and pressure. TCV equals GSV plus FW.

(7) TOTAL OBSERVED VOLUME (TOV). The total measured volume of all petroleum liquids, S&W, and FW at observed temperature and pressure.

(8) VOLUME CORRECTION FACTOR (VCF). The "Factor" (or "Multiplier") obtained from ASTM D 1250/API Standard 2540, Manual of Petroleum Measurement Standards, Chapter 11.1, Table 6A-Generalized Crude Oils, Correction of Volume to 60°F Against API Gravity at 60°F.

(9) WATER CUT. The line of demarcation of the oil/water interface determined by applying water-finding paste to the "bob" attached to the end of the measuring tape, and to a length of the tape above the bob.

(10) TANK SHELL CORRECTION. The correction for expansion or contraction due to variations in ambient and product temperatures, API MPMS Chapter 12, Section 1, Part 1. Ambient as well as product temperatures must be considered when calculating the effect on the shell of the tank. The correction is referred to as CTSh, Correction Tank for Shell.

8. CONTACT. Questions, additions, deletions, and corrections concerning this Order should be addressed to the SPRPMO Crude Oil, Drawdown Readiness and Cavern Integrity Division, FE-4422, [redacted]

[redacted]
[redacted]
Project Manger
Strategic Petroleum Reserve

Attachment:
Attachment 1 – Contractor Requirements Document

ATTACHMENT 1

CONTRACTOR REQUIREMENTS DOCUMENT
SPRPMO O 416.1B, PETROLEUM ACCOUNTABILITY ORDER,
DATED 10/01/15

Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this Contractor Requirements Document (CRD). The contractor is responsible for flowing down the requirements of this CRD to subcontractors at any tier to the extent necessary to ensure the contractor's compliance with the requirements.

The Strategic Petroleum Reserve Project Management Office (SPRPMO) Management and Operating (M&O) contractor shall:

1. Implement the Petroleum Accountability and Loss Control Program for crude oil, Northeast Home Heating Oil Reserve (NEHHOR) and Northeast Gasoline Supply Reserve (NGSR) movements incident to procurement, receipts, transfers, drawdown, sales and exchanges.

2. Maintain and update the Crude Oil Valuation and Tracking System (COVATS). COVATS is the repository for all SPR crude oil, NEHHOR and NGSR accountability data generated from SPR, Terminals and GR. In addition, maintain and update COVATS user manuals.

3. Maintain electronic and hard copy files of SPR crude oil, NEHHOR, and NGSR data generated by sites, Government Representative (GR), and Terminals.

4. Investigate, provide detailed report with supporting documentation and disposition recommendation to the SPR Crude Oil Accountability Review Board (COARB) for all non-determinable crude oil losses within the time frame requested.

5. Maintain a cumulative tracking system for all crude oil losses and operational variances which can be used for trending data, if requested.

6. Provide training, as required for operations, maintenance, quality assurance and subcontractor personnel (including GR) involved with implementation of this order at all SPR sites.

7. Maintain and review annually for updates, the Crude Oil Quality and Quantity Control Procedures Manual, Published ASI 7000.12 (or current version); Crude Oil Pricing Procedure, Published AAA 9010.5 (or current version).

8. Provide recommended written interim guidance or directions relating to crude oil, NEHHOR, and NGSR accountability and loss control for recording, documenting and reporting data or transactions not addressed in current governing documents. Interim

guidance shall be approved by the Crude Oil Management Team prior to distribution and incorporated in next scheduled revision of appropriate governing document.

9. Notify the Crude Oil Management Team via telephone or email within 3 days of completed delivery of any crude oil variances in excess of .40% (per transaction); primary measurement failures or quality testing/sampling issues related to oil movements.

10. Conduct SPR crude oil accountability training to new employees or employees recently assigned the responsibility for preparing, recording, documenting, approving, and submitting crude oil, NEHHOR, and NGSR transactions.

11. Conduct refresher training for drawdown or major accountability changes as needed to assure site employees and GR are knowledgeable and understand accountability procedures and requirements.

12. Review and approve all crude oil, NEHHOR, and NGSR transactions. In addition to ensuring all proper supporting documentation is scanned into COVATS and linked to the transactions prior to DOE approval.

13. Conduct weekly status meetings with the Crude Oil Management Team to update on crude oil accountability actions or issues.

14. Prepare and distribute, once approved, the weekly EIA 801, 803, 804 reports and monthly EIA 813 and 814 and 815 Reports.

15. Update and post inventory data on the Fossil Energy webpage weekly.

The attached appendices provide guidance and documentation needed for compliance with this Order.

PURPOSE. The CRD is issued to identify the M&O Contractor responsibilities for the accountability and inventory control procedures for measuring, recording, documenting and reporting crude oil inventories under custody and/or title of the SPR. All contractor responsibilities must be accomplished in compliance with this Order and all other applicable Department of Energy and SPR Project Management Office Orders and Directives.

17 Appendices:

Appendix 1 – Quality Surveillance and Quantitative Measurement
Appendix 2 – Site Transfers
Appendix 3 – Oil Fill
Appendix 4 – Drawdown
Appendix 5 – Inventory Documents and Reporting
Appendix 6 – Material Inspection and Receiving Report, DD Form 250 (AUG 2000)
Appendix 7 – Financial Liability Investigation of Property Loss, DD Form 200

Appendix 8 – SPR Calculation Worksheet for Tank Receipts/Shipments, SPRPMO F-416.1-1 (Rev. 05/10)
Appendix 9 – SPR Calculation Worksheet, Multiple Cavern Injections, SPRPMO F-416.1-2 (Rev. 06/02)
Appendix 10 – SPR Crude Delivery Report, SPRPMO F-416.1-3 (Rev. 08/12)
Appendix 11 – SPR Petroleum Inventory Report
Appendix 12 – SPR Tank Inventory Ticket, SPRPMO F-416.1-4 (Rev. 06/02)
Appendix 13 – SPR Vessel Discharge Record, SPRPMO F-416.1-5 (Rev. 06/02)
Appendix 14 – SPR Vessel Loading Record, SPRPMO F-416.1-6 (Rev. 06/02)
Appendix 15 – Tanker Barge Material Inspection and Receiving Report, DD Form 250-1, NOV 92 (EG)
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APPENDIX 1
QUALITY SURVEILLANCE AND QUANTITATIVE MEASUREMENT

1. STORAGE GROUPS

Strategic Petroleum Reserve (SPR) storage sites are grouped into three storage groups based upon distribution capabilities provided by both private sector and SPR-owned terminalling and pipeline systems. All functions of quality and quantity determination for receipt of petroleum from vessels and pipelines, for interim storage in tankage, for shipment to storage sites and injection into underground storage facilities, and for withdrawal, sale, and distribution are performed by the three storage groups described below and shown on Figure 1-1.

a. Capline Group

The Capline Group, in southeastern Louisiana, includes the Bayou Choctaw Storage Site in Iberville Parish and the St. James Leased Facility on the Mississippi River at St. James. SPR pipelines connect the storage sites to the St. James Leased Facility which also has SPR pipeline connections to the Capline and LOCAP pipeline terminals and Plains (tie-in agreement).

b. Texoma Group

The Texoma Group includes the West Hackberry Storage Site at Hackberry, Louisiana, the Big Hill Storage Site near Winnie, Texas, in Jefferson County, and associated SPR pipelines connecting the sites to private pipelines, pipeline terminals, and marine terminals. An SPR pipeline connects West Hackberry to the Shell 22-inch pipeline at the SPR Lake Charles Meter Station, and to the Sun Nederland Terminal at Nederland, Texas. An SPR pipeline connects Big Hill to the Sun Nederland Terminal and to the Shell 20-inch pipeline serving East Houston. A tie-in connects the SPR Big Hill pipeline with Beaumont Terminal's 24-inch pipeline and expanded dock facilities at Beaumont Terminal's marine terminal in Nederland, Texas. The Big Hill storage site has been designated and is operating as a Foreign Trade Zone (FTZ) subzone.

c. Seaway Group

The Seaway Group consists of the Bryan Mound Storage Site at Freeport, Texas. SPR pipelines (Jones Creek and Texas City pipelines are leased) connect the site to Jones Creek Tank Farm, Freeport, Texas, marine terminal, and Texas City terminal. Texas City has connections to common carrier and private pipelines and marine terminalling facilities.

FIGURE 1-1

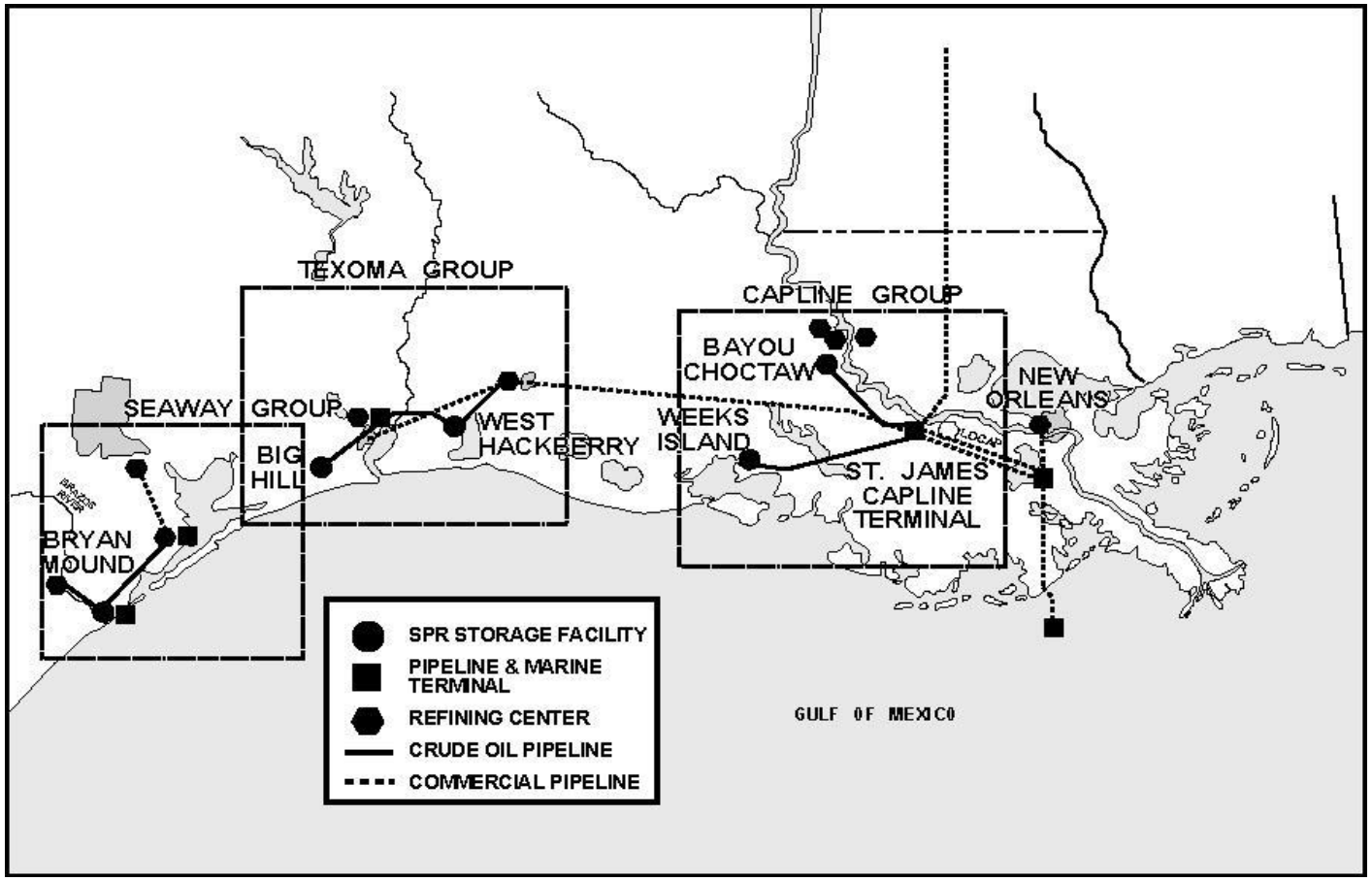
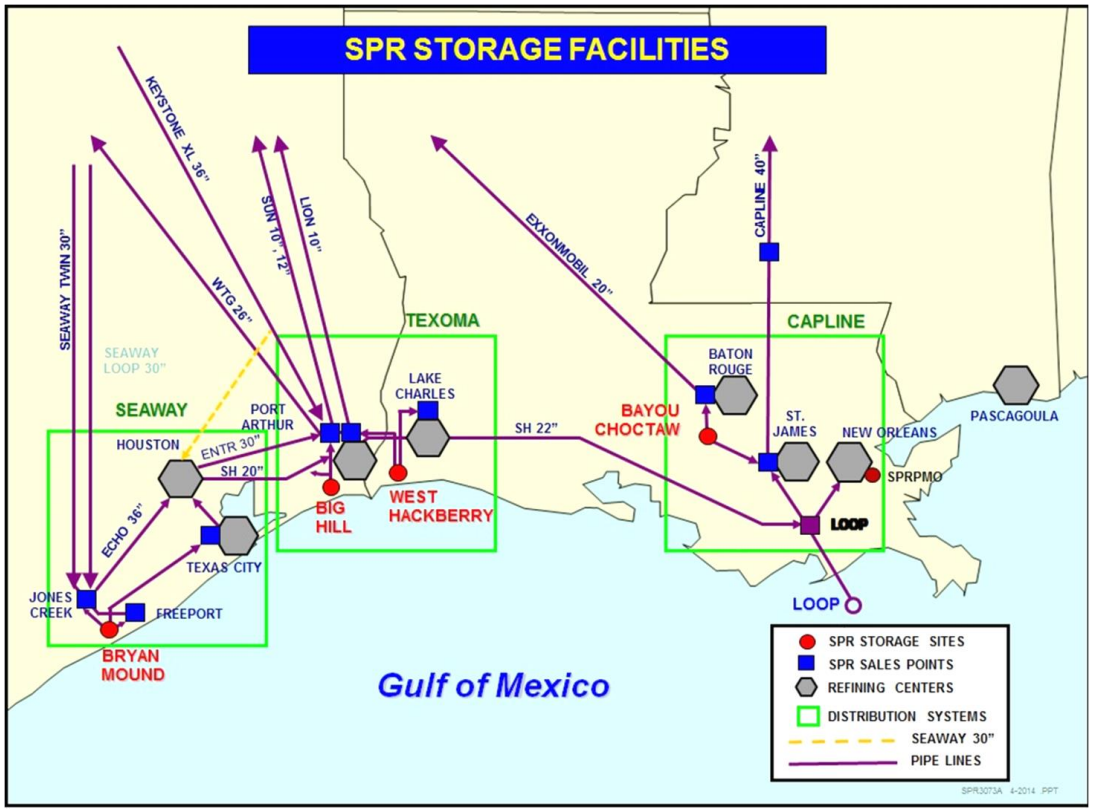

TEXOMA GROUP
CAPLINE GROUP
BAYOU CHOCTAW
NEW ORLEANS
SEAWAY GROUP
WEST HACKBERRY
WEEKS ISLAND
BIG HILL
ST. JAMES CAPLINE TERMINAL
BRYAN MOUND
SPR STORAGE FACILITY
PIPELINE & MARINE TERMINAL
REFINING CENTER
CRUDE OIL PIPELINE
COMMERCIAL PIPELINE
GULF OF MEXICO

FIGURE 1-1 (cont'd)



2. NORTHEAST HOME HEATING OIL RESERVE (NEHHOR)

In June 2012, the Department of Energy used its authority to acquire storage services and Northeast Home Heating Oil Reserve (NEHHOR) for an interim 1-million-barrel NEHHOR component of the SPR. The NEHHOR is stored at Global Revere and Hess Terminals in the Northeast.

During an emergency use of NEHHOR, SPR Program Office will have the primary responsibility of the emergency program with support from the SPRPMO. An emergency heating oil release will be in accordance with NEHHOR Distribution Plan which may be supplemented or superseded by Executive Order, establishing the response to an emergency situation.

3. NORTHEAST GASOLINE SUPPLY RESERVE (NGSR)

In June 2014, the Department of Energy (DOE) used its authority to acquire storage services and gasoline for an interim 1-million-barrel gasoline component of the SPR. The gasoline is stored at facilities in New York Harbor, Boston Harbor, and Portland, Maine.

During an emergency use of NGSR, the SPR Program Office will have the primary responsibility of the emergency program with support from the SPRPMO. An emergency gasoline release will be in accordance with NGSR Distribution Plan which may be supplemented or superseded by Executive Order, establishing the response to an emergency situation.

4. MEASUREMENT STANDARDS

All procedures performed are to be in accordance with the most current American Petroleum Institute (API)/American Society for Testing Materials (ASTM) standards, including the following:

a. API Manual of Petroleum Measurement Standards (MPMS) Chapter 7, "Temperature Determination."

b. API MPMS Chapter 12.2, "Calculation of Liquid Petroleum Quantities Measured by Turbine or Displacement Meters."

c. API MPMS Chapter 17.1, "Guidelines for Marine Cargo Inspection."

d. API MPMS Chapter 17.2, "Measurement of Cargoes On Board Tank Vessels."

e. API Standard 2534, "Manual of Petroleum Measurement Standards for Turbine Meters."

f. ASTM D1085 (API Standard 2545), "Gauging of Petroleum and Petroleum Products."

g. ASTM D1250 (API Standard 2540) (API MPMS Chapter 11.1) - Petroleum Measurement Tables, Table 5A Generalized Crude Oils, Correction of Observed API Gravity to API Gravity at 60°F, and Table 6A, Generalized Crude Oil, Corrections of Volume to 60°F Against APR Gravity at 60°F.

h. ASTM D4057 (API MPMS Chapter 8.1), "Manual Sampling of Petroleum and Petroleum Products."

i. ASTM D4177 (API MPMS Chapter 8.2), "Automatic Sampling of Petroleum and Petroleum Products."

j. API MPMS Chapter 12, Section 1, Part 1, The correction for expansion or contraction due to variations in ambient and product temperatures, Ambient as well as product temperatures must be considered when calculating the effect on the shell of the tank. The correction is referred to as CTSh, Correction Tank for Shell.

5. QUALITY SURVEILLANCE

Sampling and testing requirements for each point in the procurement and delivery process where title and/or custody changes, for movements of oil within or between SPR complexes, and for periodic sampling of SPR caverns and mines are contained in the SPRPMO O 413.3, Change 2, Crude Oil Quality Program and Test Criteria Order (or current version). Sampling and testing will be witnessed by the Government Representative (GR). The SPR requirements set forth below are to be considered a minimum, and should not restrict additional sampling and/or testing should the SPRPMO deem it necessary.

a. Sampling

(1) Arriving tanker cargoes: An all-level sample from each compartment and composite sample for each tanker cargo.

(2) Barge shipments: A composite sample from all barge compartments.

(3) Pipeline shipments: A composite in-line or an all-level tank sample taken where the shipment enters the pipeline, and another at the receiving terminal or site from the main pipeline.

All samples shall be labeled for identification and retained in accordance with the required retention periods identified in the SPRPMO O 413.3, Change 2, Crude Oil Quality Program and Test Criteria Order (or current version).

b. Testing

The testing requirements listed below are for new oil receipts unless prescribed otherwise, and are to be included in SPR contracts for terminalling services.

(1) API Gravity at 60 °F

(2) Total Sulfur (mass percent)

(3) Elemental Analysis

(4) NORM

(5) Water by Distillation or Karl Fischer

(6) Sediment by Extraction or Membrane Filtration

(7) Light Ends Content (liquid volume percent)

c. Testing Facilities

All SPR on-site crude oil laboratories have the capability to perform the following crude oil analysis: API Gravity, Sulfur, Sediment and Water (S&W), and Reid Vapor Pressure. Any crude oil analyses beyond the capabilities of the SPR on-site laboratories will be performed by a Government-approved contract facility. Appendix 16 contains the SPR Crude Oil Analysis laboratory report used at the SPR on-site testing facilities.

d. DOE Quality Authorization

Oil transfers requiring DOE authorization include, but are not limited to, the following:

(1) The loading of one type of crude oil over tank bottoms of a different grade crude.

(2) Planned commingling of site piping oil inventory resulting from operational requirement.

(3) Planned site pipe commingling as a result of cavern depressuring.

Prior authorization from DOE is not required for individual oil movements in which a portion of the barrels for upgrade/downgrade are incident to the physical measurement limitation of the movement. For example, site receipt of pipeline segregated batches of sweet and sour crude oil that cannot be cut off and measured exactly to the barrel for each batch. Also not requiring prior authorization are tank

inventory month-end administrative adjustments that include upgrades/downgrades in which the tank book inventory is adjusted to the end-of-month tank physical inventory.

In situations where prior approval is not necessary, the M&O contractor is still responsible to notify DOE at the end of the month for these types of oil grade adjustments.

In situations where DOE authorization is required, the procedures to obtain DOE authorization are as follows:

(1) The M&O contractor Site Operations Manager, after consulting with the DOE Senior Site Representative (SSR), will advise the M&O contractor New Orleans Operations Group of the planned movement requiring upgrade/downgrade of crude oil, including the reasons for the request, the specifics of the movements, and any alternate options.

(2) The M&O contractor New Orleans Operations Group will coordinate the information from the sites with the Crude Oil Logistics (COL) (Quality Section).

(3) The M&O contractor New Orleans Operations Group along with input from the COL Quality Section will conduct an analysis of the planned upgrade/downgrade (sweet/sour) or commingling of oil grades request.

(4) This analysis will consist of the following elements:

(a) Determine possible alternate options available to preclude the necessity for upgrade/downgrade of oil.

(b) Determine the validity of alternate options, e.g., vapor emission avoidance program, cavern/site scheduled projects, etc.

(c) Compute the cost expenditures required for viable alternate options, e.g., frac tanks, power, labor, etc.

(d) Compute the projected composite API Gravity and Sulfur quality for the commingled oil.

(e) Compute the net API Gravity and Sulfur quality impact that the commingled oil will have on the SPR cavern, if injected.

(f) Determine if projected API Gravity and Sulfur calculation results meets the SPR Technical and Performance Criteria Level I crude specification requirements.

(g) If the projected crude specifications exceed the SPR limits, provided in SPRPMO O 413.3, Change 2, 5(a), determine if the anomalies require SPR Project Manager approval.

(h) Provide justification (from site) of cavern selection for injection.

(i) Determine if the request complies with the SPR Technical and Performance Criteria Level I, "Commingling of Crude Oil."

(j) Obtain the current oil market grade differential between sweet and sour crudes.

(k) Compute net monetary ($) benefit or loss value for each option, upgrade or downgrade; upgrade or downgrade volume and value difference.

(l) Provide recommendation for upgrade or downgrade based on the above analysis.

(5) The M&O contractor New Orleans Operations Group will forward the request and analysis to the M&O contractor Operations Manager that will review the request and analysis.

(6) The M&O contractor Operations Manager will forward the request and analysis to the Crude Oil Management Team (COMT) which will require authorization from DOE.

(7) Upon receipt of written DOE authorization, the M&O contractor Operations Manager or the New Orleans Operations Group shall forward copies of the correspondence to the Site Operations Manager, COL (Quality Section and Oil Accountant).

(8) COL (Oil Accountability) shall contact the site accountability clerk to ensure that the upgrade/downgrade is recorded properly.

e. Crude Oil Waiver Requests

As defined in the SPRPMO Crude Oil Quality and Test Criteria Order, 413.3, Change 2 (or current version) and the M&O contractor's Crude Oil Quality and Quantity Control Procedures Manual AS17000.12 (current version), the Crude Oil Management Team shall be immediately notified of all crude oil quality and quantity anomalies. Crude oil waiver requests submitted to the COMT must be submitted in accordance with the SPRPMO Crude Oil Quality Program and Test Criteria Order, Appendix 4, Waiver and contain specifics relating to the DD Form 250(-1) occurrence, i.e., identify discrepancy, volume, date, receipt/delivery points, site/cavern numbers, and explanation of occurrence.

A copy of the DOE waiver request/concurrence must be attached to the DD Form 250 and retained on file at the site and with M&O contractor's COL in New Orleans.

(1) When a DOE waiver is required, do not include a DOE name responsible for giving concurrence.

(2) SPRPMO O 413.3, Change 2 states that "A statement that DOE concurrence was given and must be on the DD Form 250. Also, a copy of the DOE waiver request/concurrence must be attached to the DD Form 250."

f. Ratification Process

When an event was executed without an appropriate waiver/approval, a ratification is required. The ratification will be adhered to as follows:

(1) The M&O contractor Site Operations Manager, will advise the M&O contractor New Orleans Operations Group of the event.

(2) The M&O contractor New Orleans Operations Group will coordinate the information from the sites with COL.

(3) The M&O contractor New Orleans Operations Group along with input from COL will conduct an analysis of the unplanned event.

(4) The ratification will consist of the following elements:

(a) Specific description of what occurred (movement).

(b) Reasons why the appropriate procedure(s) were not followed.

(c) Request DOE concurrence regarding recommended.

(d) Address what measures will be implemented to prevent future occurrences.

(5) The M&O contractor New Orleans Operations Group will forward the ratification to the M&O contractor Operations Manager that will review the ratification and analysis.

(6) The M&O contractor Operations Manager will forward the ratification to the COMT which will require authorization from DOE.

(7) Upon receipt of written DOE approval, the M&O contractor Operations Manager or the New Orleans Operations Group shall forward copies of the correspondence to the Site Operations Manager, M&O COL (Oil Accountant).

(8) M&O COL (Oil Accountability) shall contact the site accountability clerk to ensure that the ratification is recorded properly.

(9) In the event the ratification results from a unique situation not covered by this order and additional guidance is required, the M&O COL (Oil Accountability) shall develop recommended interim guidance and distribute to Site Operation Managers once approved by DOE. The interim guidance will be incorporated into the order during the next scheduled revision.

6. DETERMINATION OF QUANTITY

a. Opening and Closing Shore Tank Gauges

Quantities will be determined from opening and closing shore tank gauges, except when meter readings are provided for by contractual arrangements. In addition, surge relief tanks will also be monitored to ensure no off-normal occurrences. All volumetric measurements will be converted to Gross Standard Volume (GSV) by first deducting free water (except where automatic line samples are used for determining the Sediment and Water (S&W)), then using ASTM D 1250/API MPMS Standard 2540, Volume 1, Tables 5A and 6A for conversion of gross at observed temperature to GSV and to Net Standard Volume (NSV) by deducting S&W as determined by testing.

NOTE: Terminalling contracts for receipt and storage of SPR petroleum normally provide for payment of throughput and transportation based on GSV unless otherwise stated in the terminalling agreement. It will, therefore, be necessary to show the GSV on the related shipping/receiving documents in addition to the NSV.

b. Tank Gauge Reports

Tank gauge reports, where applicable, will be prepared to reflect the change in inventory resulting from each receipt or delivery of a crude oil cargo. All quantities shall be stated as GSV and NSV barrels.

c. Meters and Metering Reports

Where meters are used for measuring receipts and/or shipments, certified metering reports or batch reports will be prepared to reflect the changes in inventory. If meters are equipped with ticket printing devices, the tickets will be summarized on

a worksheet and used as supporting documents. Meter and volume correction factors, pressure factor, and calculations of NSV will be shown on the worksheets. When SPR meters are used for custody transfer measurements (e.g., Big Hill, Bayou Choctaw, or West Hackberry Lake Charles Meter Station (LCMS)), and the SPR is unable to obtain meter measurements in accordance with API and SPR procedures, notification must be provided to DOE COMT immediately.

d. Loading or Discharging Vessels

When loading or discharging vessels, gauges of the vessel's compartments, including a water cut, will be taken, both before and after loading or discharging, and recorded on SPRPMO F-416.1-5, SPR Vessel Discharge Record, or SPRPMO F-416.1-6, SPR Vessel Loading Record. Example forms are shown in Appendices 13 and 14, respectively. Although mandatory for Free-on-Board (FOB) origin cargoes, such gauging may also to be performed on FOB destination cargoes by the receiving terminal or cargo supplier or representative. The quantities thus determined will be compared with the shore tank gauging, or metered quantities, before the official quantity is entered on the loading or discharge report. Any variation exceeding 0.40 percent (except where contractual provisions provide other percentage limits) will be investigated and resolved immediately, or explained in Block 28 of DD Form 250-1 as to the cause or probable cause of the variance. Note: There is a 0.1% limit for free water determinations for arriving vessels.

e. Formats for Gauging and Metering Reports

Contractors operating SPR-owned terminals will use the forms prescribed herein. Contractor-owned, contractor-operated terminals may use their own forms if they provide complete information as shown on the SPRPMO prescribed forms and worksheets included in Appendices 8 and 12; if not, the SPRPMO prescribed forms and worksheets will be required. This rule applies to SPRPMO sites as well.

f. Disposition of Gauging/Metering Reports

Completed gauging and/or metering reports and calculation worksheets will be attached as supporting documents to the related DD Form 250 for pipeline shipments and receipts, and the DD Form 250-1 for vessel loading or discharge reports. End-of-month tank gauge tickets, volumetric calculation worksheets, and S&W laboratory reports will be submitted in support of the physical inventory appearing on Monthly Inventory Reports.

g. Strapping (Calibration) Table

A copy of the strapping (calibration) table for each shore tank used for storage of SPR petroleum at terminals and sites will be forwarded to the M&O contractor Crude Oil Logistics. When an additional tank is placed in service for SPR oil, the

related table will be furnished immediately, or with the first month-end inventory report on which the new tank's inventory is reported.

h. Custody Transfer Delivery of SPR Oil to Contractor

(1) Bayou Choctaw to Redstick

Custody transfer quantity and quality measurements will be the Bayou Choctaw meter and in-line sampler for deliveries into the Shell Red Stick pipeline. Secondary measurement for quantity and quality will be the St. James meter and quality will be manual grab samples taken at the Bayou Choctaw site.

(2) Bayou Choctaw to St. James Terminal

Custody transfer quantity and quality measurements will be the St. James Terminal meters and in-line sampler for deliveries into the St. James Terminal. Secondary measurement for quantity will be the Bayou Choctaw meter and quality will be manual grab samples taken at the Sugarland site.

(3) Bayou Choctaw to Placid

Custody transfer quantity and quality measurements will be the Bayou Choctaw meters and in-line sampler. Secondary quantity will be based on Placid shore tank (if static) or Shell unmanned meter. Secondary quality will be based on grab samples taken at the DOE Bayou Choctaw site.

(4) Bryan Mound to Freeport Terminal #2

Custody transfer quantity and quality measurements will be the Freeport Terminal #2 Dock site meters and in-line sampler for deliveries at the connection point between the Bryan Mound pipeline and the Freeport Terminal. Secondary measurement for quantity and quality will be at the Bryan Mound site meter and in-line sampler.

(5) Bryan Mound to Texas City Terminal (via leased DOE pipeline)

Custody transfer quantity and quality measurements will be the Bryan Mound site meters and in-line sampler for deliveries into the leased 40" pipeline connecting to Texas City Terminal. Secondary measurement for quantity will be at the Texas City meter and quality based on grab samples taken at the Bryan Mound site.

(6) Bryan Mound to Genesis Texas City Terminal (via leased DOE pipeline)

Custody transfer quantity and quality measurements will be the Bryan Mound site meters and sampler for deliveries into the leased 40" through the Genesis 30" pipeline connection to Genesis Texas City terminal. Secondary measurement for quantity will be at the Genesis Texas City meter and quality based on grab samples taken at the BM site.

(7) Bryan Mound to Jones Creek Terminal (via leased DOE pipeline)

Custody transfer quantity and quality measurements will be the Bryan Mound site meters and in-line sampler for deliveries into the leased 30" pipeline connecting to Jones Creek Terminal. Secondary measurement for quantity will be at the Jones Creek meter and quality based on grab samples taken at the Bryan Mound site.

(8) Big Hill to Nederland Terminal Tanks

Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the up-gauge on the Nederland shore tank and quality based on manual grab samples taken at the DOE in-line sampler or back-calculating open and closing analysis.

(9) Big Hill to Beaumont Terminal

Custody transfer quantity and quality measurements will be the Beaumont Terminal receipt shore tank gauges and tank composite sample using back-calculating of open and closing analysis, if applicable. Secondary measurement for quantity and quality will be at the Big Hill Site meter and in-line sampler.

(10) Big Hill to Shell 20-inch pipeline

Custody transfer quantity measurements will be the Big Hill site meters. Custody transfer quality shall be at the Big Hill site in-line sampler for the oil that passes through the Big Hill pipeline tie-in connection into the Shell 20-inch pipeline or 20-inch designated in-line sampler. Secondary measurement for quantity will be at the 20-inch designated Meter Station and quality will be based on in-line sampler or manual grab samples.

(11) West Hackberry to Nederland Terminal Tanks

Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the up-gauge on the

Nederland Terminal shore tank and quality based on manual grab samples taken at the DOE inline sampler or back-calculating open and closing analysis, if applicable.

(12) West Hackberry through LCMS to Shell 22-inch Pipeline

Custody transfer quantity and quality measurements will be the DOE LCMS meters and in-line sampler for deliveries into the Shell 22-inch pipeline. Secondary measurement for quantity will be at the West Hackberry meter and quality based on grab samples taken at the LCMS.

i. Custody Transfer of Receipt Oil to SPR:

(1) Redstick to Bayou Choctaw

Custody transfer quantity and quality measurements for the return of oil to the SPR shall be based on the Bayou Choctaw site meters and in-line sampler for the deliveries from the Bayou Choctaw pipeline. Secondary measurement for quantity will be the St. James meter and quality will be manual grab samples taken at the Bayou Choctaw site.

(2) St. James Terminal to Bayou Choctaw

Custody transfer quantity and quality measurements for the return of oil to the SPR shall be based on the St. James Terminal meters and in-line sampler for deliveries from the St. James Terminal into the Bayou Choctaw pipeline. Secondary measurement for quantity will be the Bayou Choctaw meter and quality will be manual grab samples taken at the St. James site.

(3) Freeport Terminal #2 to Bryan Mound

Custody transfer of quantity and quality will be based on the Freeport Terminal #2 Dock meter and in-line sampler. Secondary custody transfer quantity and quality measurements for the receipt of oil to the SPR shall be based on the Bryan Mound meters and in-line sampler for deliveries from the Freeport Terminal #2 to Bryan Mound.

(4) Texas City Terminal to Bryan Mound (via leased DOE pipeline)

Custody transfer quantity and quality measurements for the delivery of oil to the SPR shall be based on the Bryan Mound site meters and in-line sampler for deliveries from the leased 40-inch pipeline. Secondary measurement for quantity will be at the Texas City meter and quality based on grab samples taken at the Bryan Mound site.

(5) Genesis Texas City Terminal to Bryan Mound (via leased DOE pipeline)

Custody transfer quantity and quality measurements for the delivery of oil to the SPR shall be based on the Bryan Mound site meters and in-line sampler for deliveries from Genesis Texas City terminal(s) through the leased 40" pipeline. Secondary measurement for quantity will be at the Genesis Texas City meter and quality based on grab samples taken at the BM site.

(6) Jones Creek Terminal to Bryan Mound (via leased DOE pipeline)

Custody transfer quantity and quality measurements for the delivery of oil to the SPR shall be based on the Bryan Mound site meters and in-line sampler for deliveries from the leased 30-inch pipeline. Secondary measurement for quantity will be at the Jones Creek meter and quality based on grab samples taken at the Bryan Mound site.

(7) Nederland Terminal Tanks to Big Hill (**see Notes 1 and 2**)

Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the down-gauge on the Nederland shore tank and quality based or manual grab samples taken at the DOE inline sampler.

(8) Beaumont Terminal Tanks to Big Hill (**see Notes 1 and 2**)

Custody transfer quantity and quality measurements will be the Beaumont Terminal tank gauging and tank samples. Secondary custody transfer quantity and quality measurements will be based on Big Hill meters and in-line sampler for deliveries into the Big Hill pipeline.

(9) Shell 20-inch Pipeline to Big Hill (**see Notes 1 and 2**)

Custody transfer quantity will be based on the DOE Big Hill meters and in-line sampler or grab samplers. Secondary custody transfer quantity measurements will be based on the Shell 20-inch designated meter and inline sampler. (10) Nederland Terminal Tanks to West Hackberry

Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the down-gauge on the Nederland shore tank and quality based or manual grab samples taken at the DOE inline sampler.

(10) Shell 22-inch Pipeline to DOE LCMS (West Hackberry Oil)

Custody transfer quantity and quality measurements will be the DOE LCMS site meters and in-line sampler for deliveries into the DOE LCMS. Secondary measurement for quantity will be at the West Hackberry meter and quality based on grab samples taken at the LCMS.

(11) Nederland Terminal Docks to Big Hill/West Hackberry (**see Notes 1 and 2**)

Custody transfer quantity and quality measurements will be the DOE meter skid and in-line sampler located in Nederland Marine Terminal. Secondary measurement for quantity will be on the Nederland/Dock meter plus/minus the Sun shore tank thru/active tank and quality based the Nederland/Dock in-line sampler.

j. Redstick Line Exchange with Placid

(1) Bayou Choctaw to St. James Terminal

Custody transfer quality measurement will be the St. James Meter and in-line sampler. Secondary measurement for quantity and quality will be the Bayou Choctaw meter and in-line sampler at the Bayou Choctaw site. Secondary quality will be 3rd party shore tank or grab samples, if available.

(2) St. James Terminal to Bayou Choctaw

Custody transfer quantity and quality measurements for the return of oil to the SPR shall be based on the Bayou Choctaw site meters and in-line sampler for the return deliveries. Secondary measurement for quantity will be the St. James meter and quality will be the St. James inline sampler.

(3) Bayou Choctaw to Placid

Custody transfer quantity and quality measurements will be the Bayou Choctaw meters and in-line sampler. Secondary quantity will be based on Placid shore tank (if static) or Shell unmanned meter. Secondary quality will be based on grab samples taken at the DOE Bayou Choctaw site.

k. DOE Takeover of Leased Seaway Pipelines

(1) Bryan Mound to Texas City Terminal (via leased DOE pipeline)

Custody transfer quantity and quality measurements will be the Texas City meter and in-line sampler. Secondary measurement for quantity will be at the Bryan Mound meter and quality based on grab samples taken at the Texas City site.

(2) Bryan Mound to Jones Creek Terminal (via leased DOE pipeline)

Custody transfer quantity and quality measurements will be the Jones Creek meter and in-line sampler. Secondary measurement for quantity will be at the Bryan Mound meter and quality based on grab samples taken at the Jones Creek site.

Note 1: All Big Hill receipts shall be based on Big Hill measurements. For Big Hill receipts, the Nederland Terminal -DOE meter measurements will be referenced on the DD Form 250 and the DOE/ Nederland Terminal End-of-Month (EOM) inventory will be reconciled to the Nederland Terminal measurements.

Note 2: Nederland Terminal oil receipts of FTZ Non-Preferred Foreign classified oil for destination Big Hill will utilize the Third-Party Inspector measurements for the DD Form 250-1. The Nederland Terminal measurements will be referenced on the DD Form 250-1 and the DOE Sun Nederland EOM inventory will be reconciled to the Nederland Terminal measurements.

7. VOLUME CALCULATIONS AND CORRECTIONS

a. Basic Steps

The six basic steps involved in the determination of bulk crude oil quantities are:

(1) Measurement of volume by gauging or metering.

(2) Determination of average temperature.

(3) Test for API Gravity.

(4) Tests for water and sediment.

(5) Volume calculations and corrections.

(6) Pipeline Volume measurement by Engineering Calculations

b. Basic Calculations

(1) Measured Quantity: Obtain the measured quantity for each opening and closing gauge directly from the tank's capacity tables or from beginning and ending meter readings. If meters are used, the metered quantity or indicated volume will be adjusted by applying correction factors in the following sequence: MF (meter factor), CTL (correction factor of temperature on liquid), CPL (correction factor of pressure on liquid), and CSW (correction factor for sediment and water), rounding to five decimal places at each and every step, before the resulting CCF (combined correction factor) is used to correct the gross barrels at 60° Fahrenheit to net barrels at 60° Fahrenheit. The net standard volume shall be rounded to the nearest whole barrel. In accordance with API Chapter 12, Calculation of Petroleum Quantities, meter readings shall be truncated so that fractions of a standard unit are eliminated (not rounded) and the indicated volume will be used in the calculation of net standard volume.

(2) Free Water and Sediment: Obtain the quantities of free water and sediment corresponding to each opening and closing water gauge (cut) from capacity tables and deduct them from the respective opening and closing measured quantities. In some instance for receipt sediment and water into shore tanks, quality may be determined from origin, if anomaly exist.

(3) Gross Standard Volume (GSV): Calculate the GSV by multiplying the measured quantity (reduced for any free water and sediment for tank measurements) by the volume correction factor, API Standard 2540, Table 6A, corresponding to its gravity and temperature.

(4) Net Standard Volume (NSV): Obtain the NSV by subtracting any suspended water and sediment which may be present in the GSV.

c. Tank Floating Roof Correction

(1) Roof Displacement

A floating roof will displace a certain volume of liquid when it is in the free-floating position. The weight of the liquid displaced will be equal to the weight of the roof and attached deadwood. The roof displacement is used to correct the tank capacity table volumes when the liquid height in

the tank is at, or above the point or elevation where the roof floats freely. A partial displacement area is referred to as the "Critical Zone." When the roof is in the "Critical Zone" calculations are not as accurate and should be avoided in a custody situation, if possible. Any accumulation of water should be noted during gauging as any additional weight will affect calculation.

(2) API Gravity/Temperature Variations

Because the roof displacement is calculated for a definite API Gravity, corrections must be made for crude oil having different API Gravities. Obtain the measured quantity directly from the capacity table, and apply the correction noted on the capacity table for the difference in API Gravity for which the "deadwood" deduction on the capacity table was made. The correction is added for a crude oil of lower API Gravity and subtracted for one of higher gravity.

d. Pipeline Volume Measurement

Because of volume change due to pipeline pressures, a pipeline pressure formula worksheet will be used for calculations and supplied as supporting documentation for DD 250. Calculations will use the stated volume of the pipeline, the current API and temperature, along with factors for liquid (CPL) and correction factor of pressure on steel (CPS). All correction factors follow API Chapters 11 and 12 guidelines for; correction factors for the effect of temperature and pressure on steel, and correction factors for the effect of temperature and pressure on liquid.

Note: For pipelines equipped with temperature monitoring equipment ("temperature probes"), stabilized temperature readings from the equipment may be utilized in the pipeline pressure formula worksheet.

8. OPERATIONAL VARIANCES AND LOSSES

a. Operational Variances and Losses

An excessive non-determinable operational variance results when ending physical terminal inventory varies from the ending book inventory by more than 0.40 percent, or other percentage established in a contractor-owned, contractor-operated terminalling contract. In these instances, an investigation will be initiated at once by the GR to determine the cause or probable cause of the variance. All documentation generated as a result of the investigation will be forwarded to the M&O contractor's COL. Upon review by the SPRPMO and the M&O contractor, it will be determined if a DD Form 200, Financial Liability Investigation of Property Loss, and/or DD Form 250, Material Inspection and Receiving Report, should be generated by the M&O contractor's Site Director.

b. In-Transit Loss

Quantity of product lost incident to shipment. This includes in-transit losses on procurement as well as on transfers between SPR terminals, or between SPR terminals and SPR sites. It does not include transfers between tanks within an SPR terminal or between caverns within an SPR storage site.

c. Terminal Operating Losses

Operating losses, excluding any determinable losses, are allowable only to the extent of the actual loss, but not to exceed 0.40 percent of the sum of beginning inventory plus receipts for the month, for DOE-owned terminals, and the allowable percentage and accounting period as provided in the contract for commercial terminals. Losses exceeding the allowable percentage must be fully explained on the related inventory report. Unexplainable and unjustified excess losses will be reported on DD Form 200, Financial Liability Investigation of Property Loss. This includes normal evaporation and handling losses.

d. Determinable Loss

Quantity of crude oil lost or destroyed from determinable causes such as contamination, fraud, tank overflows, spills, fire, explosions, theft, including pumpable quantities remaining on board tankers after completion of discharge. All determinable losses require an immediate investigation by terminal and/or site directors to determine the cause. Prior to commencement of the investigation, losses which appear to exceed 100 net barrels will be reported to the SPRPMO COMT by telephone or email in order to allow immediate SPRPMO participation. When the best estimate of the net barrels lost is determined, such quantity will be documented on a DD Form 250, including explanation of how the loss occurred, and details of how the quantity was determined. The DD Form 250 will be submitted to the SPRPMO COMT, which will proceed in accordance with Section (h). If appropriate, the M&O contractor's Site Director will prepare and submit DD Form 200 (Financial Liability Investigation of Property Loss) in accordance with Appendix 7.

Note: Determinable Losses as a result of scheduled maintenance such as tank cleaning do not require convening of the COARB but do require approval of the APM for Maintenance and Operations or his designee for quantities not to exceed 500 barrels per action or a collective quantity not to exceed 2,000 barrels for the entire event. Quantities in excess of these limits require notification to the Project Manager.

Note: Determinable Losses due to evaporation of liquid hydrocarbon during a spill must be coordinated with M&O Contractor Process Engineering and Environmental Divisions.

e. Non-Determinable Loss

Quantity of crude oil apparently lost or destroyed through normal operational handling, storage, shipment or transfer (including clingage and evaporation which cannot be readily quantified) and not attributable to an identifiable cause or event. Examples of non-determinable losses include ship-to-shore measurement variances and tanker in-transit variances.

f. Unrecoverable Tank Bottoms

When a tank is to be taken out of service for cleaning, all pumpable oil will be stripped to the lowest possible level and transferred to other tanks or injected into caverns. A representative sample of the remaining tank bottoms will be tested for API Gravity, S&W, Sulfur, and elemental analysis and retained for 60 days at a SPR storage site or terminal. A minimum API Gravity reading of 15.0° and a maximum S&W content of 25 percent are established limits for recoverable oil. The results of the analyses and the implications of the quantities involved will determine the disposition of the material. In conjunction with the GR, who will be required to witness the sampling and testing, the net volume will be determined, or established, by whatever means are available.

If an SPR site is not equipped with on-site recovery equipment, analyses must be completed and reviewed before transfer to permanent cavern storage can proceed; however, transfer to collecting vessels (e.g., vacuum truck to slop oil tank) is permitted after sampling but prior to testing/analyses. If recovery equipment is stationed on-site, transfer to permanent cavern storage is permitted after it has been determined that the API Gravity, S&W content comply with the criteria established. These samples are considered high priority, and analyses must be performed as soon as feasible after they are received at the laboratory. If the material is declared unsuitable for injection into a cavern, the APM for Maintenance and Operations or his designee, must give approval prior to any injection or off-site disposal.

A DD Form 250 will be completed to document the transfer of unrecoverable tank bottoms to cavern/mine storage. Attached to the DD Form 250 will be all supporting documentation, including the laboratory analysis report, waiver authorization for cavern injection (if applicable), SPR shipping ticket(s), and the freight Bills of Lading. The DD Form 250 will include the following: the delivery tank, the receipt cavern, API Gravity, Sulfur, S&W, tank truck seal numbers, and total gross and net barrels. The DD Form 250 and all supporting documentation will be forwarded to the M&O contractor's COL.

g. Degas Loss

A quantity of the total SPR inventory of crude oil in storage has experienced intrusion of gas after the oil was placed in salt dome storage caverns. The term "gassy oil" refers to oil that formerly had a vapor pressure of 14.7 pounds per square inch absolute (psia) or below (when injected into the caverns) but now contains amounts of methane and other gasses which have infiltrated during salt dome storage and have raised the bubble point above 14.7 psia at delivery temperature. Degasification will stabilize the crude oil.

A degas plant operator will provide daily measurement documentation (including weekends and holidays) for the oil processed, comprised of the volume gas losses plus the metered oil volume after degassing. A gas chromatography calculation worksheet will be provided by the degas plant operator for the volume losses (volume percentage and barrel loss) of the ethane and heavier gases flared off. A sample shall be taken concurrent with the cutting of a DD Form 250 (Material and Inspection Receiving Report). Oil testing (API Gravity, S&W, and Sulfur) shall be performed by the M&O contractor laboratory.

Since the degas losses are part of a scheduled program, the degas loss associated with each DD Form 250 will be booked to the inventory account at that time. The degas DD Form 250s shall be accumulated for each cavern, and a DD Form 200 (Financial Liability Investigation of Property Loss) shall be issued at the completion of each cavern. The DOE SSR shall sign all degas DD Form 250s because the loss to the inventory is booked at that time, and also sign the DD Form 200 when the cavern is completed.

h. Reporting Requirement

All documentation on excessive non-determinable operational variances in excess of 0.40 percent will be investigated immediately and results forwarded to the M&O contractor's Crude Oil Accountant. Unexplainable excessive variances may be subject to a COARB. All determinable losses in excess of 100 net barrels (with the exception of losses due to scheduled maintenance) will be submitted by the COMT to the COARB appointed by the Project Manager. The COARB may appoint a Surveying Officer or Survey Board to investigate the total variance or loss. The investigator will obtain and record statements and signatures on Page 1 of the DD Form 200, Financial Liability Investigation of Property Loss, or other appropriate document prepared by the Site Director. The findings and required signatures will be entered where appropriate on the DD Form 200, which will then be submitted to the COARB. The Board will review the findings and make a recommendation to the Project Manager who will determine final disposition of the case, affix his signature, and send the form to the COMT for recording. A sample of the DD Form 200, Financial Liability Investigation of Property Loss, is shown in Appendix 7. This form is used by the COARB and the Project Manager to document losses and excessive operating variances.

i. Re-allocation of Inventory Variance

In cases where a COARB investigation concludes that an actual oil loss or gain was not incurred, but an oil imbalance exists between book and physical, calculations will be completed to reallocate the inventory variance. Specifically, on a cavern basis, reallocation of cavern oil imbalances will be based on actual inventory turnover of cavern(s).

The reallocation method is based on the book volume of each cavern, as established on the most recent interface date, compared to the sonar volume at that interface depth while considering the cavern oil storage capacity, as determined by Cavern Integrity analysis. The variance will be re-allocated proportionally to the caverns where the book volume is different than the sonar volume thereby balancing the respective site oil stream.

Cavern Integrity Analysis Process (allocation basis):

(1) Obtain most recent oil/brine interface survey for each cavern of specific site stream.

(2) Determine the depth of oil/brine interface in each cavern.

(3) Determine book inventory on the interface date: the oil inventory, from DD Forms 250 in the cavern on the interface date.

(4) Determine sonar oil volume at interface: the volume of the cavern above the oil/brine interface as determined by the sonar survey.

(5) Compute the delta of sonar volume versus book volume (based on Line Items 1-4): the sonar volume at the interface minus the book inventory at the oil/brine interface. When the sonar volume is less than the book volume it indicates that the sonar identified less oil volume in the cavern than the book volume of oil stored in the cavern. This indicates there is actually more oil storage availability in the cavern than the book volume of oil in that cavern.

(6) Caverns reflecting delta volumes that are significant will indicate actual storage space to reallocate the oil discrepancy between the book volume and the physical volume.

Note: Re-allocation of inventory calculations will be included in the final COARB Investigation Report.

APPENDIX 2

SITE TRANSFERS

1. PETROLEUM RECEIPTS AND CAVERN INJECTION

a. General

(1) Accountable quantities as determined by terminal transfer volumes will be compared with meter readings where custody transfer takes place.

(2) The shipping terminal will furnish the SPR storage site with copies of the measurement documentation and/or shipping DD Form 250 for pipeline shipments. GR participation will not normally be required for receipts and cavern injections at the site except upon request of the SPRPMO.

(3) The site will maintain close contact and coordination with the servicing terminal by the most expedient method when ordering pipeline shipments and during the pumping operation. Times will be established for simultaneous gauging/meter reading for interim checking during the shipment, at least every 8 hours for quantity comparisons, and for the 24-hour cut-off at 0600 hours daily (or at such other time as mutually agreed by the site and terminal operators) for daily operations reports.

(4) Transfer of petroleum for the purpose of pressuring a pipeline prior to an oil movement does not require a DD Form 250 because the crude placed in the line remains part of the cavern or tank inventory until such time that it is removed or a movement is completed. When a movement is involved, a DD Form 250 will be submitted for the entire movement. If the line is pressured from the receiving site, no DD Form 250 is required because the crude used in pressing the line will be pushed back to the receiving site during a movement or depressurization of the line. When a pipeline is pressured/depressured from or to a site/terminal tank, any variance between month end book and physical inventories resulting from such movements will become part of the investigation required if the variance exceeds 0.40 percent. These transfers may be witnessed by the GR.

(5) Site or terminal crude oil movements should be limited to control cavern integrity, minimize the disruption of cavern pressure trends, control inventory variances and operating gains and losses, minimize any possibility of crude oil contamination, and to prevent different grades of crude oil from being mixed (commingled) in a storage cavern, tank, or piping. Oil movements include depressuring a cavern prior to a workover, integrity testing, cavern oil and brine sampling, equipment exercises, and receipt and drawdown of the SPR crude oil inventory.

Normally during the planning phase of oil transfers, a single designated compatible storage location will be scheduled. A single location for transfers will minimize inventory variances. At times when a single location is not sufficient to accommodate receipt rates, or economically feasible, split streamlining, (injection of oil into two or more caverns or locations simultaneously) is acceptable. In the latter case, processes for accurate metering, gauging, or engineering flow analysis should be employed and documented using the best available assets.

(6) A monthly Crude Oil Transfer Measurement Report will be prepared by the M&O contractor's COL. The monthly report summarizes all site oil movements by complex, measurement points, transfer and receipt GSV volumes, and variances. It will include all investigative reports generated in response to excessive variances. The Investigative reports, prepared by the M&O contractor's Site Director/Terminal Manager, must be signed and approved by the SPR SSR before forwarding to COL. Investigative reports are also reviewed and concurred in by the M&O contractor's Oil Quality Procedures Engineer in the Crude Oil Control Section. The monthly report and accompanying investigative reports will be approved by the M&O contractor's Manager of Operations Control and forwarded to the SPRPMO's Inventory Management Specialist for review and concurrence.

b. Investigating Excess Variances

Variances, plus or minus (+/-), on all transfers of SPR-owned crude oil between Government or commercial terminals and an SPR site and transfers between sites are allowable up to 0.40 percent, unless otherwise agreed to. Differences between crude oil shipped and received that exceed the allowable variance must be reported to the COMT within 3 days of completed movement and be investigated within 30 days to determine, 1) if a variance actually exists, 2) why a variance exists, and 3) if it is necessary to submit a DD Form 200 or a DD Form 250. The 30 days shall commence from the date of completion for each crude oil transfer.

The GRs and M&O Site Directors are tasked with investigating all crude oil movements with variances in excess of 0.40 percent. The GR will initiate an immediate investigation of variances on movements received at or shipped from

Government or commercial terminals when the allowable variance of 0.40 percent is exceeded. M&O Site Directors will initiate an immediate investigation of variances on movements received at or shipped from their site. The M&O Site Director initiating the investigation will review the information with the corresponding site/terminal, prepare the investigative reports/documents, obtain concurrence from the SPR Senior Site Representative, and forward the findings to the M&O COL in New Orleans. This should be completed within 20 days.

All variances will be determined based upon gross standard volume at 60°F. At a minimum, flow rates, gauging results, batch counter failures, meter reliability, or prover failures need to be investigated for the possible cause of an excessive variance. Investigations should not be limited to the above reasons. Every effort must be made to determine the cause of an excessive variance to facilitate necessary corrective action, whether administrative or mechanical. All documentation supporting the volumes transferred and any documentation generated as a result of the investigation, to include problem/cause/solution, shall become part of the investigation and added to the DD Form 250 file.

The New Orleans M&O contractor review is comprised of the COL receipt of investigations from all SPR sites, review of the documentation by the COL Accountant and further detailed investigative review by the M&O COL Measurement Section which may include further coordination with the sites. The New Orleans investigation reviews should be completed within 10 days.

Additional actions performed in New Orleans are the compilation of all crude oil transfer information from the sites, tracking the crude oil movements with excess variances, preparing a monthly Crude Oil Transfer Measurement Report, and summarizing all site movements by complex, with measurement transfer points and variances.

(1) Shipments between Government or Commercial Terminals and an SPR Site

Immediately following any movement, the site Operations Manager or designee will provide the GR at the terminal with the gross amount at 60°F of crude oil shipped or received. When a variance greater than +/- 0.40 percent occurs, the GR will forward the results of the investigation to the Supervisor, COL, M&O Contractor. The Site Director will submit the results of the investigation to the COL Supervisor. Both the SSR and the site representative will sign the investigation.

(2) Shipments Between SPR Sites

Immediately following any movement between SPR sites, the receiving site Operations Manager or designee will provide the sending site's Operations Manager or designee with the gross amount, at 60°F, of crude

oil received. When a variance greater than +/- 0.40 percent occurs the Site Directors from each site will forward the results of their investigation to the Supervisor, COL.

(3) Documentation Review

All documentation generated as a result of an investigation will be subjected to a joint review by the SPRPMO and M&O contractor to determine whether a DD Form 200, Financial Liability Investigation of Property Loss, or DD Form 250 Material Inspection and Receiving Report, is required.

c. Site Receipts from Pipeline

(1) Quantity Determination

The quantities determined at the terminal will normally be accepted for accountability by both parties, with the exception of Bayou Choctaw. However, site meter readings will be taken simultaneously with the commencement and cessation of pumping. The readings will be recorded on appropriate worksheets for quantity calculations and corrections. The worksheet(s) will become supporting document(s) to the receiving report DD Form 250. During the pumping operation, interim readings will be taken at established times simultaneously with the shipping terminal, and gross quantities compared at least every 8 hours for detection of leaks or other abnormalities, and for the 24 hours reporting cutoff in accordance with current operating procedures.

(2) Sampling and Testing

Samples will be taken during pumping and tested for American Petroleum Institute (API) Gravity, Sulfur, and S&W. Test results will be included on the appropriate worksheets (see (1) above).

(3) Documentation

Pipeline receipts and injections by cavern will be documented on DD Form 250, and supported by applicable meter tickets or cavern calculation worksheets, tank calculation worksheets, and laboratory reports, where applicable. The completed DD Form 250 will be faxed or emailed to the M&O contractor's Crude Oil Accountant. Remaining distribution will be by mail in accordance with Appendix 6.

All backup documentation will be annotated with the DD Form 250 shipment or cargo number and the crude oil sample number representing

the delivery. This will ensure documentation and crude oil samples have an audit trail.

d. Distribution to Caverns

When oil is being injected into two or more caverns simultaneously, the total volume shipped/received from terminal tanks will be distributed to receiving caverns based on meter readings. If meters are inoperable, the pump flow rate to each cavern will be used to determine quantities injected. The SPR Calculation Worksheet-Multiple Cavern Injections form, included in Appendix 9, is used for calculating the distribution to caverns using percentages based on meter readings or pump flow rates, as appropriate. The sum of injections to individual caverns, as reflected on the DD Form 250 prepared at the site, must equal the total barrels shipped from terminal tanks as reflected on the corresponding DD Form 250 prepared by the shipping terminal.

2. INTRASITE TRANSFERS

Intrasite transfers of oil between pipelines and caverns, for fill or evacuation of the pipelines, and cavern-to-cavern or tank-to-cavern transfers will be entered into Crude Oil Valuation Assessment Tracking System (COVATS), documented on DD Form 250, supported by flow measurement data and the appropriate volume calculation worksheets by close of business every Monday. The site meters will be used for accountability and the cavern meters will be verified against the site meters where possible. All such transfers will reflect identical quantities as shipped and received. For small volume movements (10,000 barrels or less), the procedure contained in Appendix 2, Section 4.b, shall apply. All movements greater than 10,000 barrels to 100,000 barrels will require API gravity and volumetric temperature corrections to 60°F. For all movements greater than 100,000 barrels, API gravity, volumetric temperature corrections to 60°F, S&W determination and deduction, and sulfur will be required and supported by a laboratory report. At the option of DOE, testing and adjustment for S&W may be required on any or all such transfers. Also, any volume amount reported at a higher standard than what is required for all movements is acceptable as long as those requirements are met and documentation is provided with the DD-250.

Note: Additional testing may be required in accordance with SPRPMO O 413.3, Change 2, Crude Oil Quality Program and Test Criteria, but is not required for oil accountability purposes.

Figure 2-1 provides an overview of the preparation and distribution of the DD Form 250 for intrasite transfer.

Degas operations movement data will be input into COVATS, documented on DD Form 250, supported by flow measurement data and the appropriate volume calculation worksheets every 10 days.

3. INTERSITE TRANSFERS

The quantities determined by tank gauging or site meter readings at the sending site will normally be utilized for accountability by both sites. Note: FTZ sites will be primary measurement for receipt and delivery. Measurements will be taken simultaneously by both sites with the commencement and cessation of pumping. The measurements at each site will be recorded on appropriate worksheets for determining the reference transfer and receipt volumes. At least every 8 hours during the pumping operation, interim readings will be taken at established times simultaneously by both the receipt and sending site for detection of pumping abnormalities.

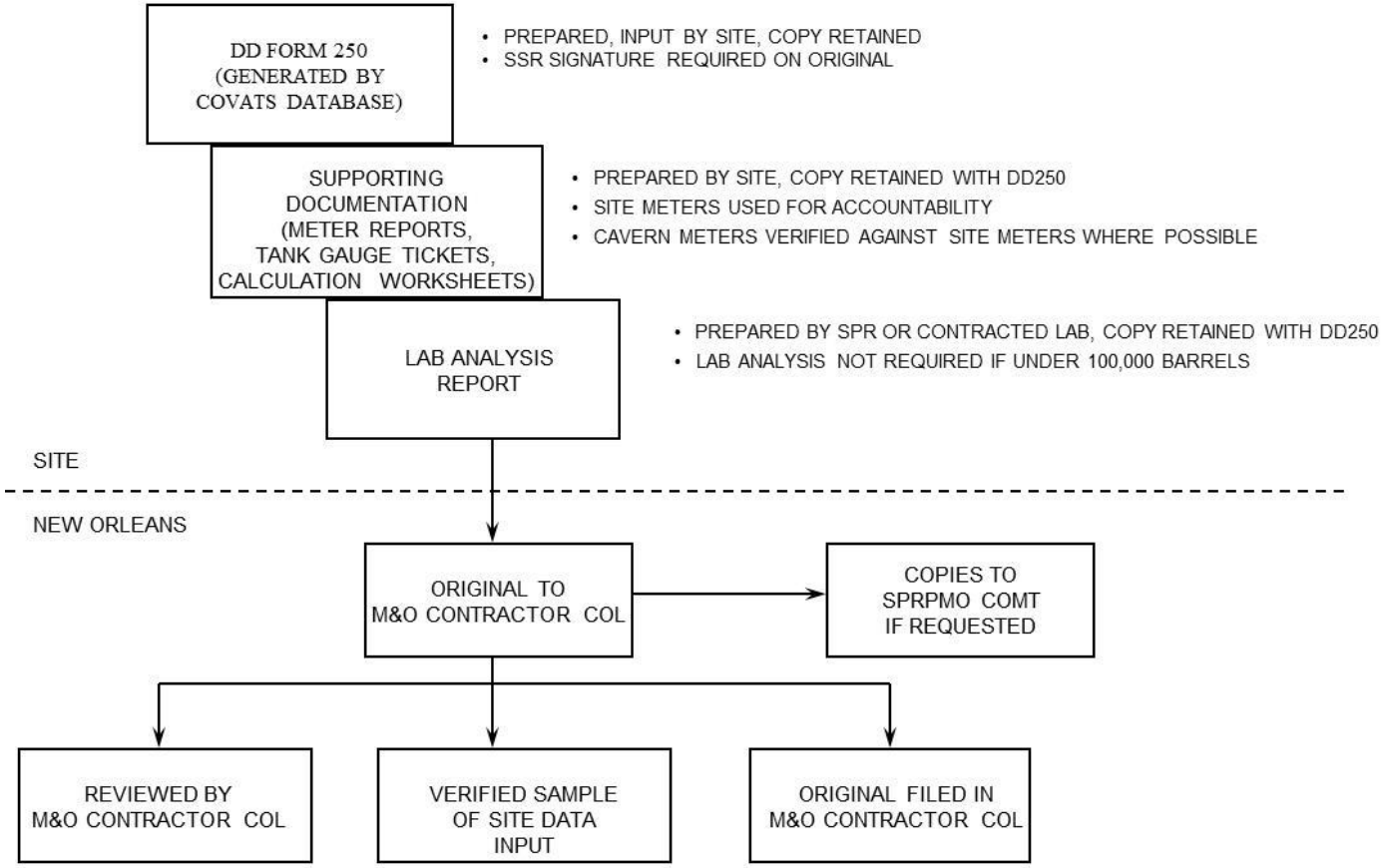
In addition to the measurements recorded on the tank calculations worksheets, the API Gravity and S&W will also be recorded to represent the receipt or transfer. A record of the laboratory analysis, in support of both the opening and closing tank quality determinations, is required as supporting documentation. In the case of in-line samplers, a laboratory report supporting the sampler analysis is required as supporting documentation.

When crude oil is received into a tank and an in-line sampler is utilized, the closing gauge tank sample analysis will represent the quality of the crude oil received. Conversely, on crude oil transfers, the opening gauge tank sample will represent the quality of the crude oil to be transferred.

The quantity calculation worksheet(s) attached to the DD Form 250 at the receipt site, in support of the reference measurement point, will become the primary supporting documentation to the transferred volume if an occurrence invalidates the tank or meter readings at the sending site. In those cases where the sending site is utilized for accountability by both sites, the supporting documentation from the sending site will be attached to the receipt DD Form 250 in addition to the supporting documentation prepared at the receipt site.

FIGURE 2-1

INTRASITE OIL MOVEMENTS



COMT - CRUDE OIL MANAGEMENT TEAM
COL - CRUDE OIL LOGISTICS

NOTE: Sampling and testing is required for oil movements exceeding 10,000 barrels. Additional testing may be required in accordance with SPRPMO O 413.3, Change 2, but is not required for oil accountability purposes.

Figure 2-2 provides an overview of the preparation and distribution of the DD Form 250 for intersite transfer.

4. SHIPMENT OF PETROLEUM

a. Terminal Tanks to Site Caverns via Pipeline

(1) Shipment Schedules

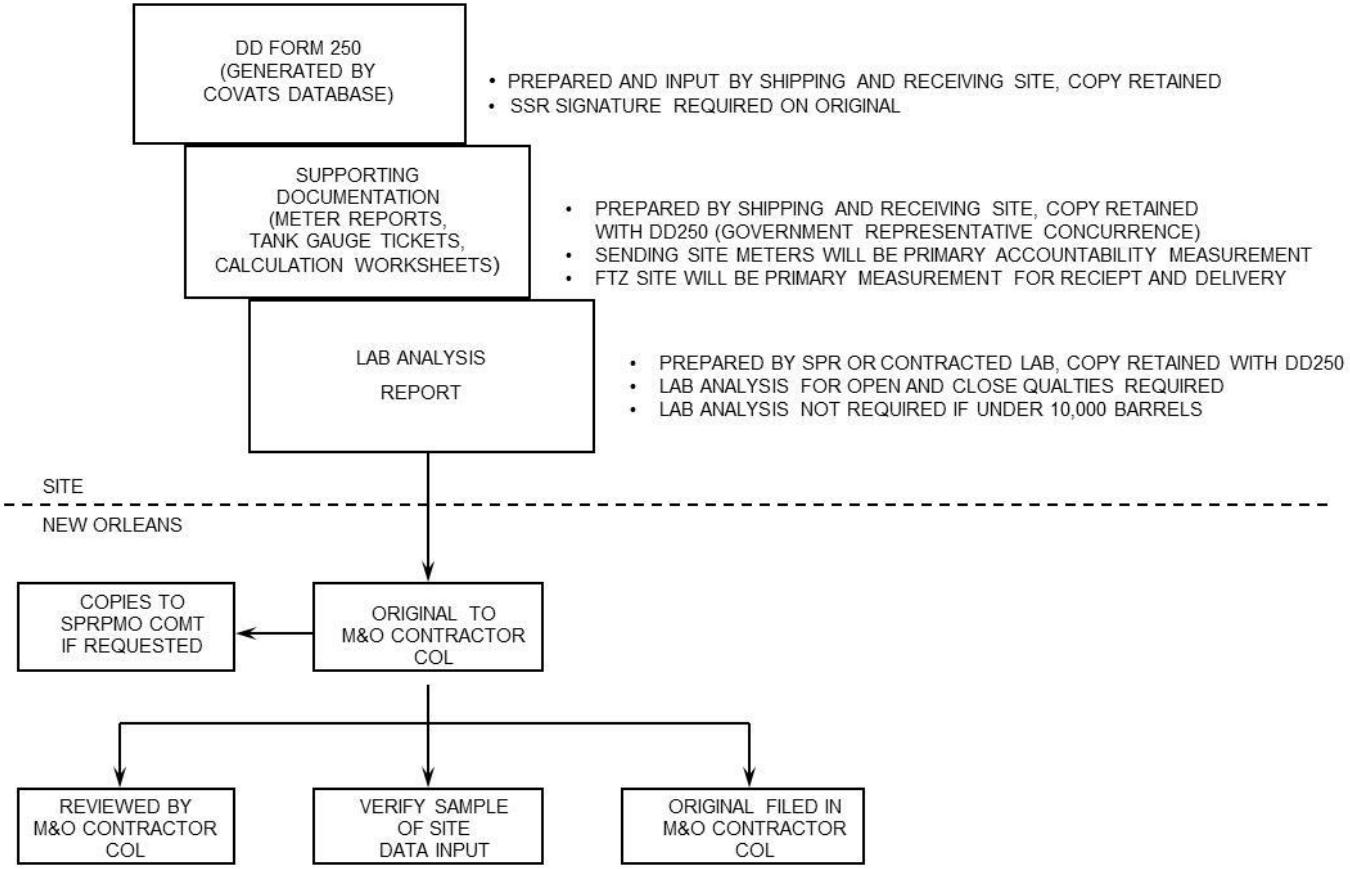
Pipeline shipments will be scheduled by the M&O contractor's COL Supervisor, Site Director and SPRPMO SSR in conjunction with the Terminal Manager. The receiving cavern will be designated by the Site Director but this information need not be furnished the shipping terminal. A shipment may continue over 1 or more days, and utilize more than one tank. After it has been determined what tanks will comprise a shipment, the shipment will be completed when the last tank is reduced to its minimum level. The quantity for each shipment will be determined by means of terminal tank gauging or metering (as applicable) and documented accordingly. The receiving site will read its meters upon completion of delivery and the readings will be recorded and used for comparison with the terminal's DD Form 250.

(2) Terminal and Site Coordination

Close coordination between the terminal and the receiving site is essential to assure that site and terminal meters are read simultaneously with commencement of, and at completion of, pumping. Intermediate readings during the operation will require continuous close coordination to assure that they are taken simultaneously at specified times. Gross quantities shipped and received will be compared at least once every 8 hours to detect operational problems or leaks of any type in the pipeline system.

FIGURE 2-2

INTERSITE OIL MOVEMENTS



COMT - CRUDE OIL MANAGEMENT TEAM
COL - CRUDE OIL LOGISTICS

(3) Determination of Quantity and Quality

(a) Tank Gauge, Sample, and Temperature

The shipping tanks will be gauged, sampled, and temperature taken before and after the shipment to determine the GSV and NSV quantity shipped. The GR participation is required to observe such movements at the terminal. Test results required for calculating net volumes of oil shipped (excluding small volume movements of 10,000 barrels or less) will be used for both opening and closing tank volumes and will be entered on the DD Form 250, supported by a laboratory report. However, the quality criteria requirements as contained in SPRPMO O 413.3, Change 2, will be adhered to.

(b) Documentation

Pipeline shipments will be documented on DD Form 250 which will be supported by meter tickets, tank calculation worksheets, and laboratory sheets. The completed DD 250 with supporting documents will be distributed by mail in accordance with Appendix 6.

b. Transfers Within SPR Storage Groups

(1) Intertank Movements

Transfers of petroleum that do not alter the total tank inventory (such as transfers between terminal tanks) will require tank gauging and preparation of gauging tickets and appropriate volumetric calculation worksheets for quantity determination. Such intraterminal movements do not require formal documentation on DD Form 250, since total tank inventory does not change, but do require recording in terminal records for internal control; and submission of gauge tickets and calculation sheets to the M&O contractor's Crude Oil Accountant, in New Orleans.

(2) Other Movements

(a) Total Tank Inventory Changes

Movements which alter the total tank inventory such as transfers from or to tanks for fill or evacuation of in-terminal pipelines will be witnessed by the GR and documented on DD Form 250 supported by gauge tickets and appropriate volumetric calculation worksheets. The completed DD Form 250 will be distributed as prescribed in Appendix 6.

(b) Special procedures for small volume movements:

1) Applicability. This applies to individual movements of 10,000 gross barrels, or less, which are incident to day-to-day operations, and do not alter the total complex inventory. This includes movements contemplated by (a), above, and tank receipts/shipments from/to cross-country pipeline incident to depressuring or packing the line, and for cavern workovers, cavern depressuring, injecting blanket oil and the like.

For depressuring or packing cross-country pipelines while in static mode, a predesigned engineering formula and calculation worksheet for each cross-country pipeline is to be used in accordance with API Chapter 12. Those movements which require pipeline pressure adjustments will use and provide calculation worksheets with pipeline formulas as supporting documentation for the DD-250. For pipelines equipped with temperature monitoring equipment ("temperature probes"), stabilized temperature readings from the equipment may be utilized in the cross-country pipeline calculation worksheet.

2) Volume Determination. Volume measurements will follow established procedures except that small volumes, as contemplated herein, will be reported in gross barrels without correction for temperature, or deduction of S&W.

3) Procedure. Small volume movements will be documented on a DD Form 250 monthly. Volumes may be accumulated until 10,000 gross barrels or until the end of the month. In addition to the "type of crude," the period (from and to dates) of accumulation will be shown in Block 16, and the accumulated total in Block 17 of DD Form 250. The DD Form 250 will be supported by a worksheet, meter ticket and/or tank gauge ticket, or other support documentation, as appropriate, for each individual movement included in the Block 17.

(c) Special procedures for movements over 10,000 barrels:

1) Applicability. This applies to individual movements over 10,000 gross barrels, which are incident to day-to-day operations, and do not alter the total complex inventory. This includes movements contemplated by (a), above, and tank receipts/shipments from/to cross-country pipeline

incident to depressuring or packing the line, and for cavern workovers, cavern depressuring, injecting blanket oil and the like.

2) Volume Determination. Volume measurements will follow established procedures.

3) Procedure. Volume movements over 10,000 barrels will be documented on a DD Form 250 by close of business every Monday. Supplemental documentation shall be uploaded to COVATS in support of DD Form 250.

5. RECEIPT/SHIPMENT DOCUMENT NUMBERING

Document numbers will be formulated locally at SPR terminals and sites in accordance with the method described below.

a. Composition of Numbers – DD Form 250 and CODR

Numbers to be used in Block 2 of the documents will be assigned and entered by the preparer, and consist of four alpha and six numeric characters, except as shown for domestic pipeline receipts. The first two alpha characters indicate the point of origin (i.e., shipping activity), the second two indicate the destination, (i.e., receiving activity). The six numerics indicate the year, month, and sequential number of the shipment for that month. DD Forms 250 for intraterminal/site oil movements (tanks to pipeline, cavern to cavern, etc.) will be numbered sequentially in a separate sequence from interterminal/site movements (i.e, Terminal to Site or Site to Terminal).

Details and examples follow.

(1) Alpha Characters

CODE	ORIGINS/DESTINATIONS
AR	Seaway, Texas City, Texas (formerly known as ARCO)
BC	Bayou Choctaw Caverns/Site Lines
BT	Beaumont Terminal, (formerly UNOCAL, Chevron, P66)
BH	Big Hill Caverns/Site Lines
BM	Bryan Mound Caverns/Site Lines
BTKS	Bryan Mound Tanks
CH	Chevron
CP	Capline Terminal, St. James, Louisiana
DC	Destination Consent
DR	Destination Cargo
DX	Drawdown Exercise
EX	Exchange Oil Delivery
FP	Freeport Docks
FR	Foreign Trade Zone, RIK
GD	Gasoline Delivery
GR	Gas Receipt

HO	Heating Oil Delivery
HP	HOOPS crude oil receipt into the SPR
HR	Northeast Heating Oil Reserve Receipt
JC	Jones Creek Tank Farm, Freeport, Texas
KS	Koch Shipping Terminal, St. James
LC	LOCAP Terminal, St. James, Louisiana
NP	Nederland Pipeline
NT	Nederland Terminal, a.k.a. Sun Marine Terminal
OA	Oil Acquisition
OC	Origin Consent
OP	Origin Pemex
PD	Destination Pipeline
PD XXXX	FOB Destination Pipeline Deliveries
PE	Maya Exchange
PH	SPR Oil Delivered to Heating Oil Contracts
PL	Shipments to/Receipt from Pipeline
PLDS	Placid Pipeline Delivery
PLF	Pipeline Linefill
PN	NPR Pipeline
PN XXXX	FOB NPR Pipeline Deliveries
PO	Pipeline Origin
PO XXXX	FOB Origin Pipeline Deliveries
PP	Seaway Freeport
PR	Pipeline RIK
PT	Plains Terminal
PX XXXX	P/L receipts from Domestic Source
RP	Refined Product
SJ	DOE Terminal, St. James
SU	Sun Marine Terminals, Inc., Nederland, Texas
TP	Texaco Terminal, Nederland, Texas
TX	Lake Charles Meter Station
UN	UNOCAL Terminal, Nederland, Texas
WH	West Hackberry Caverns/Site Lines
XX	Destination code to be entered in Block 2; SPRPMO Form 416.1-3 for delivery of SPR Crude Oil to a purchaser during drawdown (actual or simulated)

SUFFIX

A	Admin. Adj – 3000 bbl Linefill
B	Admin. Adj. –Correction to Cargo (BDS; BLD)
C	Terminal gain/loss
DS	Discharge Cargo (COVATS Designation
LD	Load Cargo (COVATS Designation)
M	Pemex Contract II

(2) Origin/Destination Codes

Origin/destination codes are necessary for tracking movements in COVATS. To ensure that appropriate inventory data is recorded, the following are some sample origin/destination codes, by site.

(a) Bayou Choctaw

BCBC	Cavern-to-cavern transfer.
BCBCSJPL BCBCSP	a) Transfer from a cavern to a cross-country or b) site pipeline.
SJPLBC SPBC	a) Transfer from a cross-country or b) site pipeline to a cavern.

(b) Big Hill

BHBH BHBHTKS BHTKSBH	a) Cavern-to-cavern transfer. b) Cavern-to-tank transfer. c) Tank-to-cavern transfer.
BHSP BHNTPL	a) Transfer from a cavern to the site pipeline or b) the cross-country pipeline.
SPBH NTPLBH	a) Transfer from the site pipeline b) or the cross-country pipeline to a cavern.
BHNTPLTX2022PL	Transfer from the Big Hill cross-country pipeline to Shell 20".
TX2022PLBHNTPL	Transfer from Shell 20 to the Big Hill cross-country pipeline.

(c) Bryan Mound

BMBM	Cavern-to-cavern transfer.
BMBMTKS	Cavern-to-tank transfer.
BMTKSBM	Tank-to-cavern transfer.
BMBMSP BMBMFPPL	a) Transfer from a cavern to the site pipeline b) to the cross-country pipeline leading from Texas City, Freeport, or Jones Creek.
BMSPBM	a) Transfer from the site pipeline to BM cavern or

BMFPPLBM b) the cross-country pipeline leading from Texas City, Freeport, or Jones Creek to a Bryan Mound cavern.

BMTKSBMSP a) Transfer from a tank to the site pipeline or
BMTKSBMFPPL b) to the cross-country pipeline leading to Texas City, Freeport, or Jones Creek.

BMSPBMTKS a) Transfer from the site pipeline or the cross-country pipeline leading from Texas City, Freeport, or
BMSPPLBMTKS b) ones Creek to a Bryan Mound tank.

TCTKSBMTCPL Transfer from a Texas City tank to the cross-country pipeline leading to Bryan Mound.

BMTCPLTCTKS Transfer to Texas City tank from the cross-country pipeline leading from Bryan Mound.

JCTKSBMJCPL Transfer from a Jones Creek tank to the cross-country pipeline leading to Bryan Mound.

BMJCPLJCTKS Transfer to Jones Creek tank from the cross-country pipeline leading from Bryan Mound.

FPDKBMFPPL Transfer from Freeport dock to the cross-country pipeline leading to Bryan Mound.

BMFPPLFPDK Transfer to Freeport dock from the cross-country pipeline leading from Bryan Mound.

(d) Capline Terminal

BCSJPLSJCLPL Transfer from Bayou Choctaw cross-country pipeline to the Capline Terminal.

SJCLPLBCSJPL Transfer from the Capline Terminal to a Bayou Choctaw pipeline.

(e) LOCAP Terminal

BCSJPLSJLCPL Transfer from a Bayou Choctaw cross-country pipeline to the LOCAP Terminal.

SJLCPLBCSJPL Transfer from the LOCAP Terminal to a Bayou Choctaw cross-country pipeline.

(f) Plains Terminal

BCSJPLSJPMPL	Transfer from a BC cross country pipeline to the Plains Terminal.
SJPMPLBCSJPL	Transfer from the Plains Terminal to a Bayou Choctaw cross-country pipeline.

(f) St. James

SJSPBCSJPL	Transfer from the St. James Leased Facility (Shell Sugarland) tank to the Bayou Choctaw cross-country pipeline.
SJSPBCSP	Transfer from the St. James Leased Facility (Shell Sugarland) tank to the Bayou Choctaw site pipeline.
BCSJPLSJSP	Transfer from a Bayou Choctaw cross-country pipeline to a St. James Leased Facility (Shell Sugarland) tank.

(g) Nederland Marine Terminal (NT)

NTTKSWHNTPL NTTKSWHSP	a) Transfer from NT tank to the Big Hill or West Hackberry cross-country pipeline or b) from a NT tank to the NT site pipeline.
WHNTPLNTTKS WHSPNTTKS	a) Transfer from a Big Hill or West Hackberry cross-country pipeline to a NT tank or b) from NT pipeline to a NT tank.

(h) Shell 20”

TX2022PLBHNTPL	Transfer from Shell 20” to the Big Hill cross-country pipeline.
BHNTPLTX2022PL	Transfer from the Big Hill cross-country pipeline to Shell 20”.

(i) West Hackberry

WHWHSP	a) Transfer from a cavern to the site pipeline or the cross-country pipeline leading to either Sun Marine Terminal or

WHWHNTPL	b) the Lake Charles Meter Station.
WHTKSWHSP	Transfer from a West Hackberry site surge tank to a pipeline.
WHWH	Cavern-to-cavern transfer.
WHWHTKS	Transfer from a West Hackberry cavern to a West Hackberry site surge tank.
WHTKSWH	Transfer from a West Hackberry tank to a West Hackberry cavern.
WHNTPLWH	Transfer from a cross-country or site pipeline to a West Hackberry site surge tank or cavern.
LCMSSPWHSP	Transfer from the Lakes Charles Meter Station or cross-country pipeline to West Hackberry.
WHSPCLMSSP	Transfer from West Hackberry to the Lake Charles Meter Station or cross-country pipeline.

(j) Beaumont Terminal

BTTKSBHNTPL	Transfer from a BT tank to the Big Hill cross-country pipeline.
BHNTPLBTTKS	Transfer from the Big Hill cross-country pipeline to a BT tank.

(k) Accounts Receivable (Legacy System only)

CUBC	From Customer to Accounts Receivable (Bayou Choctaw)
BCCU	From Accounts Receivable to Customer (Bayou Choctaw)
CUBM	From Customer to Accounts Receivable (Bryan Mound)
BMCU	From Accounts Receivable to Customer (Bryan Mound)
CUWH	From Customer to Accounts Receivable (West Hackberry)

WHCU From Accounts Receivable to Customer (West Hackberry)

CUBH From Customer to Accounts Receivable (Big Hill)

BHCU From Accounts Receivable to Customer (Big Hill)

(l) Pipeline Transfers

PLPL Pipeline-to-pipeline movements

(3) Numeric Characters

(a) Intragroup Pipeline Movements

1st and 2nd	Last two digits of the calendar year.
3rd and 4th	Months 1 through 12 (Jan. - Dec)
5th and 6th	Consecutive shipment Numbers 01 through 99.

Examples of intragroup shipment numbers are shown below.

1) Terminal to Site

Shipment No. BTWHSP 10 09 02
Origin Beaumont
Destination is WH/BH Pipeline
Calendar year 2010
Month of September
Second shipment for September

2) Intrasite Transfer

Shipment No. BM BM 10 09 12
Origin is Bryan Mound Cavern
Destination is another BM Cavern
Calendar year is 2010
Month of September
Twelfth shipment for September

3) Site to Terminal Shipment via Pipeline

Shipment No. WH BT 10 03 02
Origin is West Hackberry Caverns
Destination-Pipeline to Beaumont Terminal
Calendar year is 2010
Month is March
Second shipment for March

4) Site/Terminal Receipt from Pipeline

Shipment No. SJPL BC 91 04 03
Origin is the St. James Leased
Facility (Shell Sugarland) to BC PL
Destination is Bayou Choctaw Caverns
Calendar year is 2010
Month is April
Third Shipment for April

(b) Pipeline Receipts from Domestic Suppliers

The pipeline delivery cargo number, consisting of two alpha and four numeric characters, will be assigned by the Crude Oil Management Team and furnished to the receiving terminal.

b. Composition of Numbers - DD 250-1 (Tanker/barge Loading Inspection and Receiving Report)

Numbers to be entered in Block 3 - Report Number, on DD 250-1 will be assigned and/or entered by the preparer. The numbers will be composed of one (1) alpha and three (3) numeric characters. Details and examples follow:

(1) Alpha Characters

The one alpha character will be a prefix to identify the type of report. The alpha "D" will identify a Discharge Report, the alpha "L" a Loading Report.

(2) Numeric Characters

(a) SPR Petroleum Receipts (Tanker Discharge)

(b) SPR Interterminal and Terminal-to-Site Shipments

Vessel cargoes loaded at an SPR terminal and destined for another SPR terminal/site will use the same numbering system.

APPENDIX 3
OIL FILL

1. GENERAL

The Energy Policy and Conservation Act (P.L. 94-163, enacted December 22, 1975), gives the Energy Department the authority to acquire crude oil through several methods such as exchanges and oil purchases. The acquisition or procurement of SPR petroleum may be accomplished by the Defense Energy Support Center (DESC) under terms of an existing IAA, or by DOE initiatives. DOE initiatives for oil fill includes the U.S. Minerals Management Service and DOE RIK program, the DOE Exchange 2000 program, the DOE initiative for deferral of contractor oil deliveries to the SPR, the DOE Facility Lease Revenue Program and direct purchases. Where DESC performs procurement of SPR petroleum (Free-On-Board (FOB) Origin cargoes) with Military Sealift Command (MSC) chartering the vessel, title shall pass to DOE and custody to the chartered vessel when the crude oil passes the vessel flange at loadport. Title and custody shall remain with the supplier on FOB destination deliveries until delivery to the SPR. In the case of direct procurement by the DOE, the contract will make provision as to title and custody transfer points. Procedures for maintaining accountability will be governed accordingly. The SPRPMO will issue procedures as required.

In accordance with Generally-Accepted Accounting Principles, new oil receipts shall be recorded in a subsidiary ledger when ownership transfers to the DOE. When applicable, the FOB origin tanker cargo or pipeline oil shipment to the SPR shall be booked to an "oil in-transit" SPR inventory account while the oil is enroute to the SPR. When the oil is received at an SPR terminal/contracted terminal or SPR site and the oil in-transit status is no longer applicable, the oil is measured again and transferred to an SPR complex inventory account. Any in-transit variances between the purchased quantity at origin and the receipt custody quantity at an SPR site or SPR terminal/contracted terminal shall be booked to an "oil in-transit loss/gain" inventory account.

a. Royalty-In-Kind (RIK) Program

The RIK Exchange Program is an authorized oil fill initiative used to fill the SPR to its authorized capacity, as expeditiously as practicable consistent with market conditions, in order to increase U.S. energy security. Under the RIK Exchange Program, the Department of the Interior contracts for the delivery of Federal royalty oil to market centers along the Gulf Coast, where ownership of the oil is subsequently transferred to DOE. DOE solicits contracts to exchange the royalty oil at the market center for delivery of crude oil that meets the quality specifications of the SPR.

From 1999 through December 2009, the SPR accepted RIK transfers of crude oil as the primary means of acquiring oil for the SPR. In fact, the final cargo that completed fill to the SPR's capacity on December 27, 2009, was royalty-in-kind exchange oil. The SPR received a total of 164.1 million barrels of crude oil through the RIK program.

b. DOE Exchange 2000 Program

This initiative, authorized by the President, directed the DOE to exchange 30 million barrels of crude oil to alleviate a potential fuel supply shortage in the United States and to increase the inventory of the SPR. As a result, the SPR Project Management Office successfully awarded 30 million barrels of crude to nine companies for exchange at Bryan Mound, West Hackberry, and Bayou Choctaw. Delivery to the contractor was completed by December 31, 2000.

c. DOE Initiative for Deferral of Contractor Oil Deliveries to the SPR

As part of the DOE program to increase the oil reserves in the SPR, DOE has negotiated and accepted deferral of contractor RIK and Exchange oil deliveries to the SPR. The contractors provide additional crude oil barrels as payment for deferral of deliveries to the SPR.

d. DOE Facility Lease Revenue Program

DOE has leased its St. James Terminal and connecting Bayou Choctaw cross-country pipeline to Shell, and its Bryan Mound cross-country pipelines connecting Seaway/Arco Terminal in Texas City and Jones Creek Terminal in Freeport to ExxonMobil.

DOE has the option to request lease revenue in the form of oil (oil in lieu of cash clause). Balances owed are tracked monthly until it is feasible to request crude oil barrels or a determination is made to receive cash.

e. DOE Direct Purchase

SPR Fill has been primarily accomplished by purchasing crude oil on the open market. Concern over the vulnerability of the United States to additional oil cutoffs prompted the Federal Government to purchase most of the oil for the SPR in the late 1970s and early 1980s. Direct purchases were suspended in the 1990s until January 2009 to replace inventory sold in 2005 in response to Hurricane Katrina. Under the January 2009 purchase, the SPR awarded contracts to purchase 10.6 million barrels at a cost of $553 million. The oil was delivered between February and April 2009. In April 2015, the DOE awarded 4.2 million barrels to be delivered to the SPR to replenish the oil released in Test Sale 2014. The oil was delivered between May and July 2015.

2. SCOPE

This appendix covers the handling and storage of SPR petroleum from the time and point that custody/title is transferred to the SPR until title and custody are transferred to another entity. Specific procedures are included for SPR sites and terminals and contractor-owned, contractor-operated terminals under contract to the SPR for handling and storage of crude oil. Procedures are prescribed for all common functions; site-specific procedures are prescribed for those functions unique to a specific site or terminal.

3. TERMINAL/SITE OPERATIONS

a. Quantity Variations

Variations between net quantities shipped and received (load point and discharge point DD 250-1), and between vessel and shore quantity figures will be allowed up to 0.40 percent, unless otherwise provided in contracts or IAAs. On all intersite transfers, GSV variances on SPR-owned petroleum in transit between a Government or commercial terminal and an SPR site, and GSV variances between SPR sites, are allowable only to the extent they do not exceed 0.40 percent, unless otherwise agreed to. When the loss exceeds this limit, the receiving M&O contractor's Site Director will initiate an investigation immediately on the entire loss involving transfers between SPR sites, and the GR will initiate an investigation on losses involving Government or commercial terminals. The M&O contractor will notify the COMT via telephone or email as soon as practical about the loss investigation but no later than 3 days following the completed movement. All documentation supporting the volumes transferred and any documentation generated as a result of the investigation, including all findings/resolutions, will be submitted to the M&O contractor's COL. Upon review by the SPRPMO, it will be determined if a DD Form 200, Financial Liability Investigation of Property Loss, should be generated by the M&O contractor's Site Director.

b. Intraterminal Variances

The GR will initiate an investigation if the intra-terminal variance exceeds 0.40 percent. All documentation generated as a result of the investigation will be forwarded to the M&O contractor's COL. After review by the M&O contractor and SPRPMO, it will be determined if a DD Form 200, Financial Liability Investigation of Property Loss, and/or DD Form 250, Material Inspection and Receiving Report, should be generated by the M&O contractor's Site Director.

c. Documentation and Distribution

(1) Vessel or Pipeline Receipts

The original load and discharge DD Form 250-1, Tanker Barge Material Inspection and Receiving Reports generated on all crude oil procurements administered by SPRPMO will be forwarded to the COMT as soon as

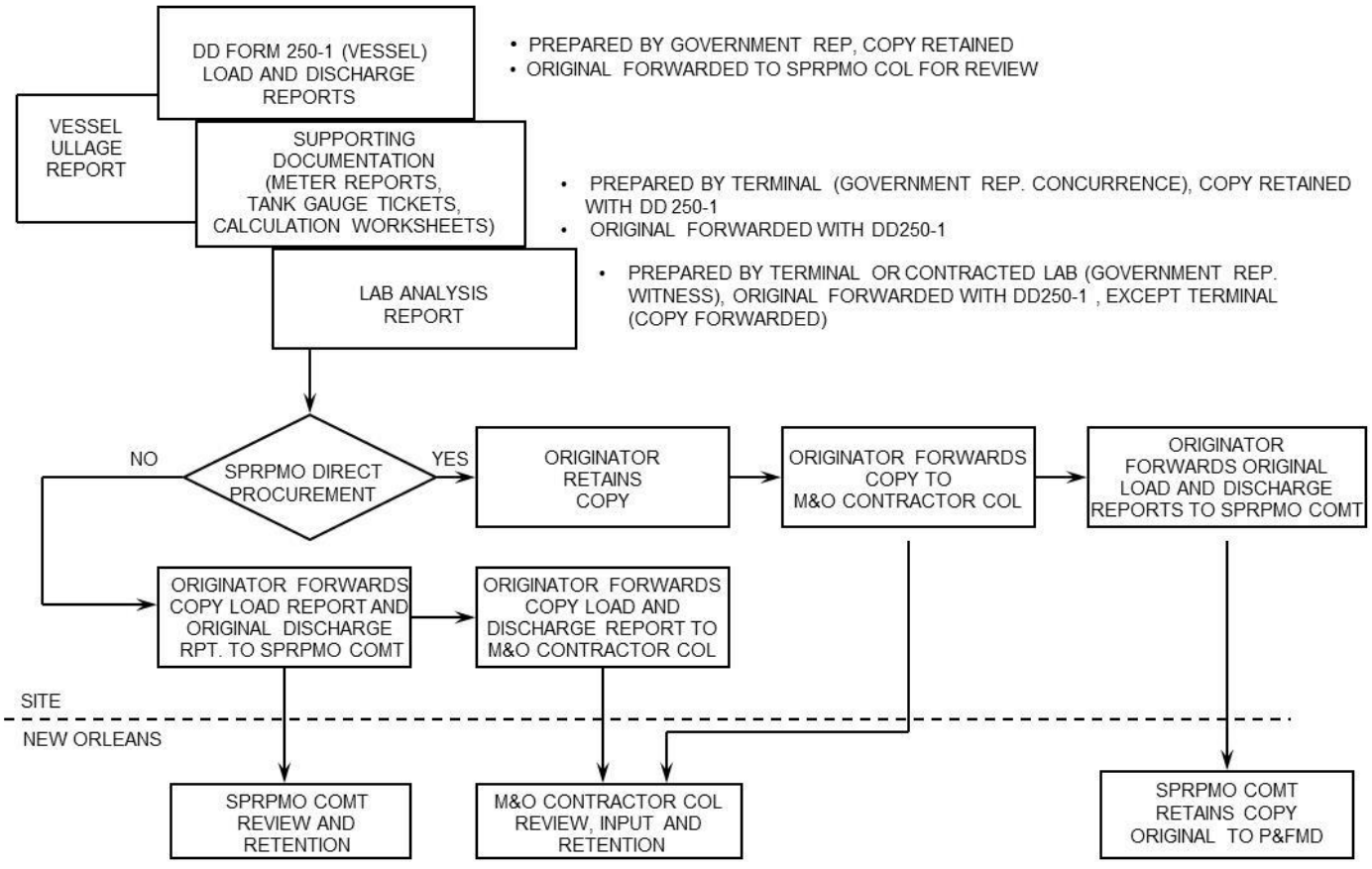
practicable following the transaction. The originator will retain a copy and forward a copy to the M&O contractor's COL for review and input into the database. SPRPMO COMT will forward all original documentation required for processing an invoice to the Planning and Financial Management Division. On all crude oil procurements administered by DESC, or when applicable, a copy of the DD Form 250-1 load document will be forwarded to the Crude Oil Management Team and the M&O contractor's COL; the original DD Form 250-1 discharge report will be forwarded to the Crude Oil Management Team and a copy forwarded to the M&O contractor's COL. Figure 3-1 provides an overview of the creation and distribution of DD Form 250-1.

The DD Form 250 has been modified to reflect the unit price in Block 19 and the total amount of purchase in Block 20. The unit price will be input by the M&O Contractor COL through use of COVATS. COVATS will automatically calculate the total amount of purchase in Block 20 of the DD Form 250 once the unit price has been input.

NOTE (only when there are quality issues with gravity or sulfur): Since COVATS and the DD Form 250 are not set up to factor in grav cap calculations due to quality issues with gravity and sulfur, a separate grav cap calculation sheet will be utilized to perform grav cap calculations as supporting documentation. The final price per barrel provided on the per grav cap calculations sheet will be used as unit price in Block 19.

FIGURE 3-1

VESSEL RECEIPT



COMT - CRUDE OIL MANAGEMENT TEAM
COL - CRUDE OIL LOGISTICS
P&FMD - PLANNING AND FINANCIAL MANAGEMENT DIVISION

The original DD Form 250, Material Inspection and Receiving Report generated on all new oil pipeline receipts will be forwarded to the M&O contractor's COL for review and input into the database. The originator will retain a copy and make a copy available to the Drawdown Readiness Team. In those cases where the original DD Form 250 quantity supports the invoiced amount and the procurement was administered by the SPRPMO, the originator will retain a copy, forward a copy to the M&O contractor's COL, and forward the original to the COMT. Figure 3-2 provides an overview of the creation and distribution of DD Form 250.

Attached to the DD Form 250-1 or DD Form 250 will be all the backup documentation supporting the quantitative entries on the form. For new oil receipts, a laboratory report in support of the SPR quality characteristics will be required as a part of the backup documentation to the DD Form 250-1 or DD Form 250. The DD Form 250-1 load report shall be utilized in lieu of a laboratory report for the reporting of the crude oil quality specification tests performed. The original supporting documentation will be forwarded with the original vessel or pipeline inspection report. Additional distribution will be made in accordance with Appendices 6 and 15.

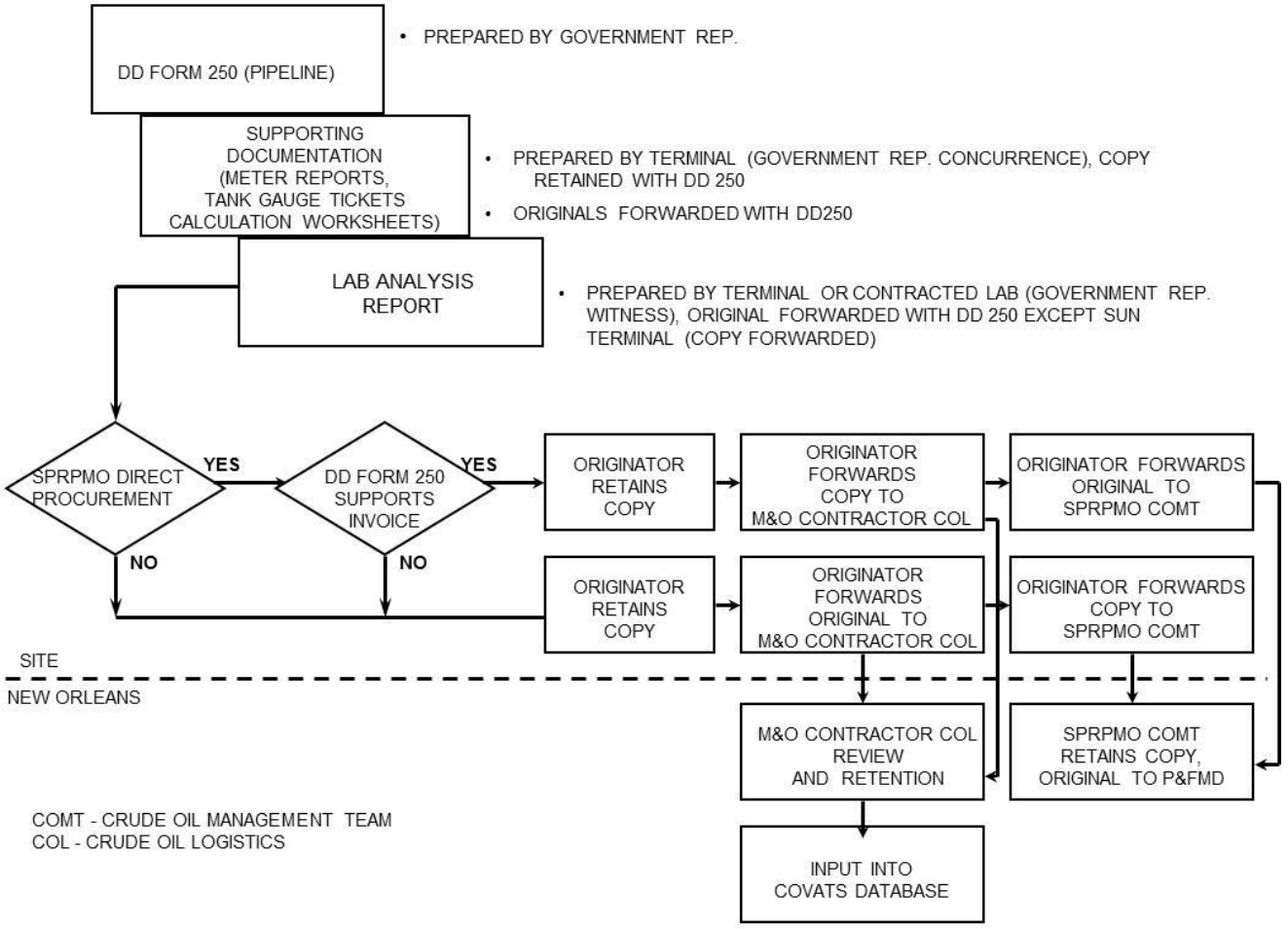
(2) Intersite or Intrasite Oil Movements

The original DD Form 250 will be forwarded to the M&O contractor with all the original backup documentation supporting the quantitative entries on the form. A laboratory analysis report for API Gravity, S&W, and Sulfur is required on intersite oil movements of 10,000 barrels or more and on intrasite movements of 100,000 barrels or more. It is not necessary that sampling and testing for API and S&W be performed for intrasite oil movements at Bryan Mound, except as stated in Section 5a below. The originator will retain a copy of the DD Form 250 and all the supporting documentation. Additional distribution will be made in accordance with Appendix 6.

All backup documentation will be annotated with the DD Form 250 shipment or cargo number, and the crude oil sample number representing the delivery will be included on each DD Form 250 or transfer document. This will assure documentation and crude oil samples have an audit trail.

FIGURE 3-2

PIPELINE RECEIPT



4. RECEIPT OF SPR PETROLEUM

a. Notification of Arrival

M&O COL will insure that the receiving SPR terminal and cognizant GR are furnished timely notice of the expected arrival of a tanker cargo or a pipeline tender.

b. Terminal Services – Contractor or SPR-Owned

The terminal operator will provide all services required for ullaging, sampling, and discharge of vessels; receipt of pipeline tenders; gauging, sampling, and testing of the receiving shore tanks, except at Beaumont Terminal where the laboratory services are subcontracted and at Texas City and Freeport Docks, where the laboratory services are subcontracted by the M&O contractor. The GR will witness all measuring, sampling, and testing of oil in shore tanks before and after receipt of the cargo. Although a minimum settling time of 2 hours is required prior to gauging, sampling, and water cut, 8 hours settling time is preferred. Site specific procedures applicable to SPR-owned terminals are covered in Section 5.

c. Arriving Vessels

(1) All cargo compartments will be gauged and water cut, and samples will be taken in accordance with Appendix 1, Sections 4 and 5 before discharge. After discharge is completed, gauges will be taken in each vessel compartment that contained cargo to determine Remaining on Board (ROB) quality. As a minimum on FOB origin cargoes, API Gravity, NORM and S&W tests will be conducted on a composite sample of the vessel's cargo tanks prior to discharge. Upon verification that the oil tests prescribed above are within the allowed specifications established by DOE, the GR may give approval for the vessel to commence discharging. Otherwise, a waiver to those criteria must be obtained from the Contracting Officer or other authorized SPRPMO designee. The GR, upon direction by DOE, has the option to verify all SPR specification tests prior to discharge. Full specification testing will be conducted on samples taken in order of preference from the locations listed below:

(a) Automatic in-line samplers,

(b) Shore tanks receiving the oil, or

(c) Vessel's composite tank samples.

The test results will be entered on DD Form 250-1. Testing will be conducted in accordance with SPRPMO O 413.3, Change 2, Crude Oil Quality Program and Test Criteria.

Temperatures will be measured before and after receipt of the cargo. See Section 5a below for specific procedures for SPR-owned tanks. The quantity received will be determined by means of terminal tank gauging or approved meters. The receiving tanks will be tested for API Gravity, Sulfur, and S&W prior to and after receipt of cargo. The NSV of receipts will be determined and documented by completion of one of the following SPRPMO form:

(a) SPRPMO F-416.1-1 (Revised 06/02) – SPR Calculation Worksheet for Tank Receipts/Shipments.

A copy of this form is included in Appendix 8.

(3) DD Form 250-1 will be prepared in accordance with Appendix 15 to document receipt of each vessel cargo. The time statement will be completed and signature of the master of the vessel will be obtained prior to release of the vessel for sailing. (Note: This form will be used for FOB and Destination cargoes that arrive via vessel.)

Distribution will be made of completed DD 250-1 forms, with supporting documents, by mail in accordance with Appendix 15.

d. Incoming Pipeline Tenders

(1) The receiving tanks will be tested for API Gravity, S&W, and Sulfur before and after receipt of cargo. Test results will be entered on the DD Form 250 with supporting worksheets attached.

(2) During receipt of the pipeline tender, a composite in-line sample will be taken, where available, and tested for gravity, sulfur, water, and sediment.

(3) The quantity received will be determined by terminal tank gauging or readings of approved meters taken before and after receipt of the oil. The appropriate calculation worksheet for tank will be used for converting a tank gauge to net barrels, i.e., NSV. Appendix 8 contains an example of this worksheet.

(4) DD Form 250, Material Inspection and Receiving Report, will be prepared in accordance with Appendix 6 to document pipeline receipts. The completed form will be signed by the SSR and a representative of the receiving terminal. The original will be forwarded to the M&O contractor's COL with all the original backup documentation supporting the quantitative entries on the form. Immediately after completion of the DD Form 250, a copy will be made available to the SPRPMO COMT. Distribution by mail will be made in accordance with Appendix 6.

e. Testing

The terminal operator will perform all required tests in terminal facilities, if available, or arrange for such tests by a qualified agency, except at Beaumont Terminal where the laboratory services are subcontracted and at Texas City, Jones Creek, and Freeport Docks where the laboratory services are subcontracted out by the M&O contractor. Testing will be witnessed and results verified by the GR before they are entered on the DD Form 250-1 or DD Form 250. If the petroleum does not meet specifications, the GR will contact the SPRPMO designee before allowing discharge of a cargo or incoming pipeline tender. Based on information supplied by the GR, and on current SPR policy, a waiver will be issued for receipt of the petroleum, or instructions will be furnished for its disposition.

5. SITE-SPECIFIC PROCEDURES FOR RECEIPT OF SPR PETROLEUM

a. Bryan Mound

This site is unique in that storage tanks and caverns are co-located on a common site, and the tanks are not used for custody measurements but rather as "surge tanks." Although tank gaugings are used to determine quantities of oil for intrasite movements, they are not normally used to determine accountable quantities of new oil received from vessels through the dock lines. These quantities are based on metering at either the Texas City and Freeport Pipeline docks, the custody transfer points. Before entering the tanks, the oil also passes through on-site meters which serve as a check against the dock meters. Samples for required testing are obtained by automatic in-line samplers on the dock lines. Since the site accountable quantities of oil are determined by either Texas City or Freeport pipeline and docks, special procedures are necessary to assure that oil inventories carried on the site inventory can be reconciled with accountable quantities measured by the terminal meters. These procedures are as follows:

(1) Tank Receipts and Shipments

(a) Tank Gauging

Opening and closing tank gauges will be taken in accordance with established procedures, omitting water cuts and sampling, to determine total fluid received/shipped and total tank inventory.

(b) Tank API Gravity Determinations

The API Gravity of each tank will be based on the gravity of the last oil received, except when the volume received is less than the tank's opening inventory (see Section (d) below).

(c) Intrasite Oil Movements

Since the quality of the oil has already been determined, further sampling and testing for API Gravity and S&W will not be required for intrasite movements, except as stated in (d) below. Determinations will be made of GSV from opening and closing tank gauges, omitting water cuts. The temperature correction factor will be based on the tank API Gravity as determined in accordance with (b) above, and the observed tank temperature.

(d) API Gravity Changes due to Intrasite Oil Movements

During normal operations, the tanks' API Gravity would not be affected by withdrawal of relatively small quantities from caverns to tanks or by tank-to-tank transfers. In the event of a drawdown, or at any time that relatively large volumes are moved (i.e., volumes exceeding a receiving tank's opening gauged inventory), automatic in-line samples or flow samples will be taken near the beginning, middle, and end of such movements and tested for API Gravity. The receiving tanks API Gravity will then be redetermined as appropriate.

(e) Other Oil Movements

In all instances where title and/or custody of oil is transferred (i.e., receipts from off-site sources, or shipments to off-site destinations), the volumes will continue to be documented and recorded in NSVs as before.

(f) Freeport Vessel Discharge to Bryan Mound Site

Vessel's delivering to the Bryan Mound site normally must displace the previous line fill of 3,000 barrels over to the Jones Creek tank farm. DOE does not accept metered TEPPCO quantities from the vessel until the connection for the Bryan Mound pipeline is opened for receipt. Once the connection point is opened, TEPPCO will take snapshot of meter as the opening for the vessel delivery into the Bryan Mound site. When the vessel completes its discharge it must wait for the next vessel to displace the 3,000 barrels for the full receipt. Thus the snapshot must be obtained from the following vessel to complete the paperwork and DD Form 250. Because of this anomaly the vessel completion date and time cannot be used for 3 and 5 day requirement for DD Form 250 reporting. That time must start at the completion of the second vessel's snapshot of its 3,000-barrel displacement.

b. Month-end Procedures for Sites with Caverns and Tanks

(1) Month-end Inventory

Tanks will be gauged, sampled, and water cut and the gross barrels adjusted to 60°F using the observed tank temperatures and the last API Gravity established for each tank in accordance with the procedure set forth in Section 5.a(1)(b), or Section 5.a(1)(d). This procedure will not be used for determining the volume of unrecoverable tank bottoms incident to tank cleaning, or for the last inventory before a tank is taken out of service. Sweet and sour inventory thus established will be compared with the sweet and sour balances in the tank journal records. For each sweet or sour variance (gain/loss) between the tank and book inventory will be documented on DD Form 250 and processed in accordance with the following section.

(2) Month-End Inventory Adjustment

The variance (gain/loss) between the month-end physical and book tank inventories will be treated as an over- or understatement of cavern injections as appropriate. A tank gain (i.e., tank physical inventory greater than book) will be treated as an overstatement of cavern injections, and the DD 250 will be prepared to reflect a decrease in the cavern and increase in the tank journal records. A tank loss (i.e., tank physical smaller than book) will be treated as an understatement of cavern injections, and the DD Form 250 will be prepared to reflect a decrease in tank and an increase in cavern book inventories. This adjustment will bring the tank physical and book inventories into agreement and will eliminate any operating variance. The adjustment will be prorated to the individual caverns on the same percentage that injections into each individual cavern for the month bears to the total cavern injections for the month.

An example of a Month-End Inventory Adjustment for Bryan Mound is provided in the Table below.

TABLE 3-1
MONTH END INVENTORY ADJUSTMENT EXAMPLE FOR BRYAN MOUND

Total cavern injections for the month:	1,900,000 Barrels	The DD 250 will reflect: Total cavern inventory: <5,000>
Ending tank physical inventory:	315,000 Barrels	Tank book inventory: 5000
Ending tank "book" inventory:	310,000 Barrels	
Variance (Tank gain):	5,000 Barrels	

Distribution of Adjustment to Caverns

Cavern No.	Barrels Injected for Month	Percent of Total	Total Barrel Adjustment	Individual Barrels Cavern Adjustment
102	850,000	45%	<5,000>	<2,250>
103	850,000	45%	<5,000>	<2,250>
108	200,000	10%	<5,000>	<500>
Total	1,900,000			<5,000>

The DD 250 will be posted to the tank Journal record as an "Increase" of 5,000 barrels, to the Cavern Inventory Control Journal record as a "Decrease" of 5,000 barrels, and to individual cavern Journal records as decreases in appropriate quantities. Balances will be adjusted accordingly.

c. Month-End Procedures for Sun Marine Terminal

The Sun inventory is reconciled once the preceding month terminalling invoice is received for verification.. Sun sends a copy of the SPR Customer Ledger containing the transactions for the month along with any necessary backup documentation to the M&O Crude Oil Accountant. Sun include OBQs and deducts ROBs from DOE's inventory balance when leasing and releasing a Sun tank if applicable. Sun also includes both measurements on tank-to-tank transfers if applicable. Any disputed variances are tracked and reconciled monthly, with settlement of gain/loss on a yearly basis which will coincide with the fiscal year of the SPR.

d. Big Hill Foreign Trade Zone Accounting

The DOE storage site Big Hill is a designated Foreign Trade Zone and as such, crude oil received at Big Hill is received in either of two categories:

(1) Domestic (Duty Paid) or

(2) Non Preferred Foreign (Duty not Paid).

Crude oil in the Big Hill inventory is the subject of accounting procedures as established in this manual and those established by the U.S. Customs Department. In a separate ledger and under the guidance of the U.S. Customs Department, an "Inventory Control and Records Keeping System (ICRS) is maintained for the scrutiny of the U.S. Customs Inspectors. The ICRS is subject to customs spot checks and audits. Authority for operator record keeping lies in Part 146 Code of Federal Regulations.

APPENDIX 4

DRAWDOWN

1. GENERAL PROCEDURE FOR DRAWDOWN

The field activity procedures for drawdown are essentially the same as for fill, except in reverse. That is, shipment will be from underground storage to an SPR terminal and from there to a commercial purchaser. The sale will reduce the SPR inventory and a billing and collection will be processed for the amount of the sale. All measurements, sampling, testing, and volume calculations and corrections incident to custody and title transfers provided by the Terminals shall be witnessed by a GR. In addition, the GR will independently calculate tank volumes, test crude oil samples and provide approved/signed supporting documentation with other documents required in Appendix 10. Although a minimum settling time of 2 hours is required prior to gauging, sampling, and water cut, 8 hours settling time is preferred. Purchasers will have the right to witness these functions. API/ASTM standards shall apply for quantity and quality determinations. Document preparation, distribution, recording and reporting will follow the procedures set forth in Appendix 10.

2. SITE-SPECIFIC PROCEDURES FOR DRAWDOWN

a. Eastern Complex Custody and Title Transfer

(1) Site to Terminal

Oil withdrawn from Bayou Choctaw will normally be moved by pipeline to SPR-owned St. James Leased Facility tanks, St. James, Louisiana. The volume withdrawn from Bayou Choctaw will be metered from the site meter skids to the pipeline and will be the primary measurement of quantity. The St. James meter skid will be used for backup purposes and the tank contents will be sampled and tested before and after receipt for API Gravity, S&W, and Sulfur for reference. A DD Form 250 will be prepared to document the quantity and quality.

(2) St. James Leased Facility to Customer

Custody and title will pass to the customer at the vessel's flange for tanker loadings, or at the Capline, LOCAP Meter Station and Plains meter stations for pipeline deliveries. Quantities will be determined by tank gauging for vessel loadings, and by LOCAP meters or by Capline or by Plains meter readings adjusted by tank gauges for pipeline deliveries.

(3) Direct Delivery from Site to Customer

Oil may be delivered from Bayou Choctaw through the St. James meter to a customer through the Capline and/or LOCAP and/or Plains connection, bypassing the St. James Leased Facility tanks. In such event, measurements would take place at the shipping site, the St. James meter skids, and the Capline or LOCAP or Plains meters. Measurement through the Capline tanks will be determined and the net difference between the opening and closing gauges applied as an adjustment to the Capline meter readings. Title and custody will transfer to the purchaser at the meters or tanks where the quantity delivered is determined. The St. James meter skid or site meters will provide a backup measurement and verification check on quantities delivered. If the variance between measurements exceeds the allowable variance of 0.40 percent, or that provided by contractual arrangements, an investigation will be made to establish the cause of the variance and to determine what corrective action is necessary. These direct deliveries will be documented on a CODR in accordance with Appendix 10.

b. Western Complex Custody and Title Transfer

(1) Bryan Mound Drawdown Distribution

Oil withdrawn from Bryan Mound caverns may be moved into site tanks which will not involve a custody transfer. The site also has the capability to deliver from caverns to vessels at the Texas City dock, and the Freeport docks. Deliveries can also be made through the Jones Creek tank farm and Texas City pipeline. Deliveries from Bryan Mound tanks and caverns will utilize the Bryan Mound site tanks/meters as a backup measurement. Custody and title transfers will occur when oil is moved from the Bryan Mound tanks via pipeline and delivered to a purchaser as indicated below.

(a) Deliveries to vessels -- Custody measurements will take place at the dock meters; custody and title will transfer to the buyer at the vessel’s flange.

(b) Pipeline deliveries to Texas City -- Custody measurements, custody/title transfers will take place at the DOE meter bank, at Texas City when SPR is operating leased 40-inch pipeline. In cases when lessee maintains operations, custody measurements, custody/title transfers will take place at the Bryan Mound site meter skid.

(c) Pipeline deliveries to Genesis Texas City -- Custody measurements, custody/title transfers will take place at the DOE meter bank, at Genesis meter site when SPR is operating leased 40-inch pipeline. In cases when lessee maintains operations, custody measurements, custody/title transfers will take place at the Bryan Mound site meter skid

(d) Pipeline deliveries to Freeport -- Custody measurement and title transfer will take place at Freeport dock meters.

(e) Pipeline deliveries to Jones Creek -- Custody measurement and title transfer will take place at the Jones Creek Meter Station. In cases when lessee maintains operations, custody measurements, custody/title transfers will take place at the Bryan Mound site meter skid.

(2) West Hackberry Drawdown Distribution

Petroleum withdrawn from West Hackberry will be transferred by pipeline either to tanks at the Nederland Terminal (NT), Nederland, Texas, or the SPR Lake Charles Meter Station (Shell 22) where custody will transfer. If oil is delivered from the site directly to a customer's tank(s), title transfers at that time. Custody shall remain with NT until oil is transferred out of its facility. The volume withdrawn from West Hackberry will be metered for reference purposes from the caverns to the pipeline; but the accounting quantity is determined by tank gaugings at NT. The tank contents will be sampled and tested before and after receipt for API Gravity, S&W, and Sulfur. A DD Form 250 will be prepared to document the quantity and quality.

(3) Big Hill Drawdown Distribution

Petroleum withdrawn from Big Hill will be transferred by pipeline either to tanks at NT, the Shell 20-inch pipeline, or to the Beaumont Terminal where custody will transfer. If oil is delivered from the site directly to a customer's tank(s), title transfers at that time. Custody shall remain with NT until oil is transferred out of its facility.

The volume withdrawn from Big Hill will be metered for reference purposes from the caverns to the pipeline, but the accounting quantity for the DD Form 250 will be determined by tank gaugings at NT. The tank contents will be sampled and tested before and after receipt for API Gravity, S&W, and Sulfur. A DD Form 250 will be prepared to document the quantity and quality.

For outbound crude oil from Big Hill pipeline system into the Shell pipeline requiring line displacement:

Custody transfer quantity and quality measurements will be based on the DOE Big Hill site meter and inline sampler. Secondary measurement for quality and quantity will be SPLC Port Neches meters unless SPLC specifies otherwise. SPLC will displace the Crude Oil through to the Big Hill site meter and inline sampler, approximately 110,000 barrels. Then the Big Hill site will pump the designated amount for the order and stopping for meter and inline sample determinations. Next, the Big Hill site will return the line displacement amount of 110,000 barrels into the Pipeline System pushing the designated amount into the Shell pipeline.

The API Gravity, S&W, and Sulfur content assessment will be performed by the DOE Big Hill site laboratory and witnessed by the DOE subcontracted third party inspector. SPLC shall be given the opportunity to witness all measurements, sampling and testing. In addition, custody transfer documents shall be the DOE DD Form 250, and be signed by both DOE and SPLC. SPLC will allow the third party inspector to sample the cargo batch for pre-testing at the Port Neches station for DOE.

(4) SMT to Customer

Both custody and title will pass to the customer when the oil delivered from DOE's tanks passes the vessel's flange for vessel loadings, and at the point (valve) where the in-terminal pipeline connects to the receiving pipeline designated by the purchaser for pipeline deliveries. For intraterminal deliveries to a customer's tank, title transfers at the receiving tank's flange; custody remains with NT until oil is transferred out of its facility.

Quantities delivered will be determined by tank gauging. Volumetric calculations and corrections will be in accordance with API Standard 2540 (ASTM D 1250). The transaction will be documented on a Crude Oil Delivery Report (CODR), SPRPMO F-416.1-3, in accordance with Appendix 10.

(5) Beaumont Terminal to Customer

Vessel Deliveries

Custody and title will pass to the customer at the Beaumont Terminal dock meters. Quantity and quality will be determined by the Beaumont Terminal dock custody transfer meter and automatic in-line sampler for vessel loadings in accordance with the latest API/ASTM Measurements

Standards. The transaction will be documented on a CODR in accordance with Appendix 10.

Note: The volume of barrels of oil received by Beaumont Terminal from the Big Hill connecting pipeline shall be calculated by adjusting the volume of barrels delivered to the vessel as measured by the meters and adjusted by the net change of the volume in storage as measured by tank gauge. This assumes that all lines are packed before and after movements.

Pipeline Deliveries

On pipeline deliveries when the purchaser leases a Beaumont Terminal tank, custody and title will transfer to the buyer at the receiving tank flange.

On pipeline deliveries where the oil is transferred into a DOE tank at Beaumont Terminal, custody and title will transfer upon deliveries out of that tank to the purchaser.

Quantities delivered will be determined by tank gauging. Volumetric calculations and corrections will be in accordance with API Standard 2540 (ASTM D 1250). The transaction will be documented on a CODR, SPRPMO F-416.1-3, in accordance with Appendix 10.

(6) Lake Charles Meter Station (LCMS) to Customer

Title will pass to the customer when oil delivered from the SPR LCMS enters the purchaser's pipeline for delivery. The quantity delivered will be determined at the SPR LCMS in accordance with the latest API/ASTM Measurement Standards. The transaction will be documented on a CODR in accordance with Appendix 10.

(7) Customer through Shell 20-inch

Title will pass to the customer when oil delivered from the Shell 20-inch designated meter station enters the purchaser's pipeline for delivery. The quantity delivered will be determined at the Shell 20-inch designated meter station in accordance with the latest API/ASTM Measurement Standards. The transaction will be documented on a CODR in accordance with Appendix 10.

(8) Meter Reporting by Government Representative (GR)

In the event any anomalies relating to meter calculation occur, the GR independent calculation will be the official quantity which will be included on the CODR.

3. DOCUMENTATION

Movements of SPR crude oil incident to drawdown and sale will be documented as follows:

a. Caverns to Terminal Tanks -- DD Form 250 prepared in accordance with Appendix 6 supported by tank gauge tickets, tank calculation worksheets, and laboratory test reports.

b. Deliveries to Purchasers -- CODR, prepared in accordance with Appendix 10 with the following supporting documents:

(1) Deliveries from tanks -- Tank gauge tickets and calculation sheets, custody meter tickets and calculation sheets (if applicable), and laboratory test reports.

(2) Deliveries direct from caverns to vessels or pipeline -- Site and terminal meter tickets and calculation worksheets; and laboratory test reports.

c. Required Signatures

(1) Site caverns to terminal tanks (DD Form 250) -- The Site Director or an authorized alternate. Such delegation must be in writing, signed by the Site Director, and exercised only in the absence of the Site Director.

(2) Receipts into terminal tanks (DD Form 250) -- The Terminal Representative and the GR.

(3) Delivery to purchaser (CODR) -- The purchaser's representative; the vessel's master (for delivery to a vessel) for the "Time Statement Only"; and the GR.

(4) COMT will serve as a contingency signer on behalf of the designated DOE SSR in circumstances that a timely signature is unlikely. Such signature from COMT will exclude the COMT member who verifies the CODR in the COVATS system.

(5) Any of the signatures listed above in 3c(1-4) may be obtained electronically in DocuSign and attached electronically to the CODR.

NOTE: Alternates may sign for the principal signatory provided such alternate has been designated in writing.

d. Distribution

Distribution will be made in accordance with Appendices 6 and 10 with the following exceptions:

(1) The original CODR completed upon sale of SPR oil will be forwarded to the SPRPMO COMT once completed. The Crude Oil Management Team will then forward the original documents to SPRPMO Finance for billing. The originator will retain a copy and forward a facsimile copy to M&O contractor's COL for review and formulation of pricing data.

(2) Both the DD Form 250 and the CODR will undergo a detailed review for completeness and accuracy by the M&O contractor's COL and the SPRPMO COMT. Any inconsistencies, errors or omissions will be resolved and corrected by contact with the preparer. Data from the validated documents will be entered by the M&O contractor into the COVATS. A system generated CODR will be attached to the transaction in COVATS and all original documentation and required supporting documentation will be scanned and linked to the transaction in Crude Oil Valuation and Tracking System (COVATS) for COMT review and approval after M&O contractor COL has officially approved in COVATS. A copy of the computer generated CODR will be forwarded to COMT by email through DocuSign. COMT will digitally sign the CODR. Once signed, M&O contractor COL will receive a notice that the document was signed. M&O contractor COL will upload the document to COVATS and notify COMT once this has been done. COMT will log into COVATS and approve CODR in COVATS. Once approved by COMT, COVATS will forward the approved transaction with linked supporting documentation to SPRPMO Finance for billing.

Note: If for some reason access to the computer generated CODR through DocuSign is not available to digitally sign, COMT will printout the computer-generated CODR, complete all required adjustments, sign and date the form. The signed CODR must be electronically forwarded to M&O contractor COL to scan into COVATS.

(3) All original documents (CODR and supporting documents) including required signatures (physical or digital signature accepted) will be forwarded (faxed) timely to M&O contractor's COL to allow entry into COVATS, review and approval. Final completion of a CODR/DD 250 package with entry into COVATS of an accurate document along with proper supporting documentation shall not exceed ten (10) days after crude oil delivery date.

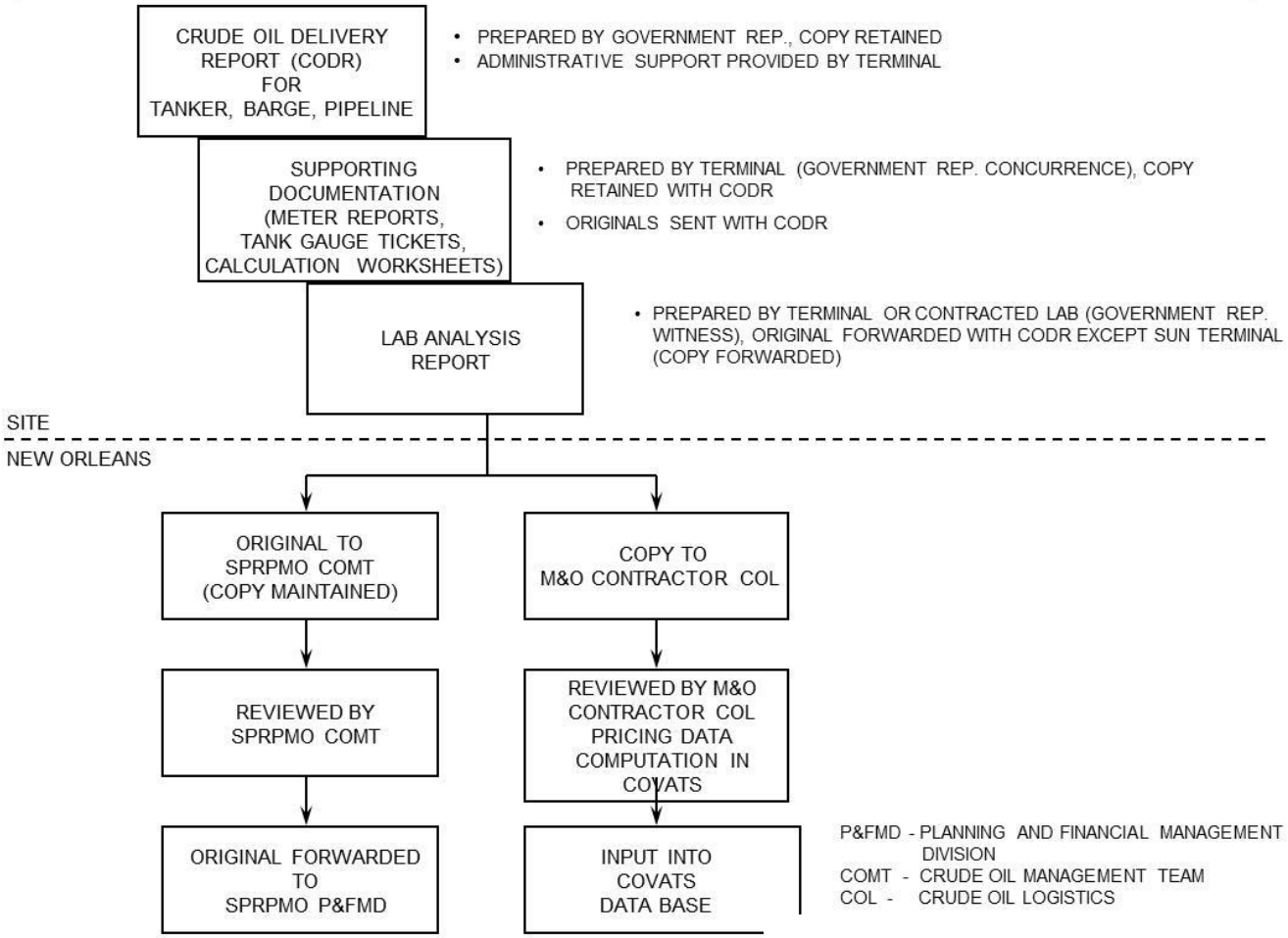
All backup documentation will be annotated with the shipment or cargo number, and the crude oil sample number representing the delivery will be included on each receipt, transfer, or sale document. This will allow documentation and crude oil samples to have an audit trail. Figure 4-I provides an overview of the creation, distribution, and review of CODRs.

e. Document Numbering

The shipment numbers for documents covering oil movements incident to drawdown will be composed as prescribed in Appendix 2, Section 5. The alpha prefix used for shipments from terminal tanks to site caverns for fill will simply be reversed for shipments from site caverns to terminal tanks during drawdown. Deliveries to purchasers, whether from terminal tanks, or direct from site caverns, will be documented on a CODR and the appropriate alpha-numeric report number will be entered in Block 2 of the form. The shipping site or terminal will be identified by the first two alpha characters followed by "XX" to indicate a purchaser for whom no specific code will be assigned. For further instructions, see Appendix 2, Section 5 which includes examples illustrating the composition of document numbers.

FIGURE 4-1

SPR CRUDE OIL SALES



4. BILLING FOR SPR PETROLEUM SALES

When the M&O contractor approved CODR transaction in COVATS is received by the SPRPMO Crude Oil Management Team, the Inventory Management Specialist will review the transaction and attached supporting documents for completeness and accuracy; certify the actual quantity shipped in net barrels at 60°F; resolve discrepancies or omissions by contacting the M&O contractor or preparer; verify the unit price, price date, amount due, and quality adjustment(s) where applicable; compare independent analysis with official information entered into COVATS; resolve discrepancies between COVATS and independent analysis; approve the transaction in COVATS which will then forward the transaction to the SPRPMO Planning and Financial Management Division (P&FMD) for further processing. Once received, the original CODR with supporting documents will be forwarded to the P&FMD to be used as support for billing. The P&FMD will perform the functions of billing the purchaser and collecting amounts due the Government.

5. ACCOUNTABILITY REQUIREMENTS

All contractual agreements will contain specific clauses outlining the responsibilities of contractors and other Government Agencies to properly account for all SPR petroleum coming into their cognizance or custody. Such clauses will include the requirements set forth below. These requirements are to be considered the minimum, and additional requirements may be imposed in specific cases.

6. QUALITY AND QUANTITY DETERMINATION

All contracts shall provide for participation by GRs. Participation by the assigned GR is mandatory as witness to metering or tank gauging, sampling, and testing for all receipts, shipments, and inventories of SPR crude oils passing through or maintained at contract terminals. The GR will also provide necessary contract administration services to assure contractor compliance with the terms of the contract.

Quantities of SPR petroleum received into contractor's storage, or shipped therefrom, and month-end inventories will normally be determined by tank gauges or meters taken by the terminalling contractor before and after each transaction, and at month-end. GR participation will be required as witness for all of these transactions and to provide independent calculations.

a. Each contract contemplated hereunder will contain a provision requiring the contractor to furnish calibration (strapping) tables to the SPRPMO Crude Oil Management Team for each tank to be used under the contract.

d. Drawdown quality/quantity measurement locations are shown in Figure 4-2.

FIGURE 4-2
DRAWDOWN QUALITY/QUANTITY PRIMARY MEASUREMENT LOCATIONS

COMPLEX	CODR MOVEMENT	TITLE TRANSFER TO PURCHASER	PRIMARY MEASUREMENT	PRIMARY SAMPLE	LAB ANALYSIS
CAPLINE	Shell Sugarland Tank –> Vessel	Ship flange	Sugarland tank gauges or Shell Sugarland meter	Sugarland tank composite sample or Shell Sugarland in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf.
	SPR Site or Shell Sugarland tank or Redstick PL –> Capline	Capline meter station	Capline meter adjusted by Capline tank gauges	Capline in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf.
	SPR Site or Shell Sugarland tank or Redstick PL –> LOCAP	LOCAP meter station or Sugarland tank or Sugarland meter	LOCAP meter or Sugarland tank or Shell Sugarland meter	LOCAP in-line sampler or Sugarland tank sample or Sugarland in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf.
	SPR Site or Shell Sugarland tank or Redstick PL –> Plains Terminal	Plains meter station or Sugarland meter or Sugarland tank	Plains meter or Sugarland meter	Plains in-line sampler or Sugarland in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf.
	SPR Site –> Pipeline (Placid)	Bayou Choctaw connection to pipeline	Bayou Choctaw meter	Bayou Choctaw in-line sampler	DOE) Bayou Choctaw lab or (M&O) DOE Contr. lab API, S&W, Sulf.
	Red Stick Line Take-over from Placid	Sugarland meter station	Sugarland meter	Sugarland (SJ) in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf.
	Red Stick Line Exchange Transfer to Placid (Barrels left in the Red Stick line from BC)	Red Stick pipeline connection to Bayou Choctaw site	Bayou Choctaw meter	Bayou Choctaw in-line sampler	(DOE) Bayou Choctaw lab or (M&O) DOE Contr. lab API, S&W, Sulf.
SEAWAY	Freeport Term. –> Vessel	Ship flange	Freeport Terminal meter station	Freeport Terminal dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	SPR Site –> Jones Creek Tanks	Jones Creek meter station	Jones Creek meter	Jones Creek Tank in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	SPR Site –> Texas City Terminal	Texas City meter station	Texas City meter station	Texas City Meter station in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	SPR Site –> Genesis Texas City Terminal	Genesis Texas City meter station	Genesis Texas City meter station	Genesis Texas City Meter station in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf

	SPR Site –> ExxonMobil Leased DOE pipelines	Bryan Mound meter station	Bryan Mound meter	Bryan Mound in-line sampler	DOE BM lab or (M&O) DOE Contr. lab API, S&W, Sulf
	Texas City Terminal –> Vessel	Ship flange	Texas City dock meter	Texas City dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
TEXOMA	Nederland (DOE) Tank –> Vessel	Ship flange	Nederland Terminal Meters or Tank gauges	Tank sample or dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Nederland (DOE) Tank –> Barge	Barge flange	Nederland Terminal Meters orTank gauges	Tank sample or Dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Nederland (DOE) Tank –> Pipeline	P/L valve connection between Nederland Terminal PL and Receiver's PL	Nederland Terminal (DOE) Meters orTank gauges	Nederland Terminal (DOE) In-lilne sampler or Tank composite sample	(M&O) DOE Contr. lab API, S&W, Sulf
	SPR Site –> Purchaser's tank and Nederland Terminal	Nederland Terminal tank flange	Nederland Terminal (DOE) meter skid or Terminal tank	Nederland Terminal (DOE) in-line sampler or Terminal tank	(DOE) Big Hill lab API, S&W, Sulf or (M&O) DOE Contr. lab API, S&W, Sulf
	Nederland Terminal (DOE) Tank –> Purchaser's tank at Nederland Terminal	Purchaser's Receiving tank flange at Nederland Terminal	Nederland Terminal (DOE) Tank gauges	Nederland Terminal (DOE) Tank composite sample	(M&O) DOE Contr. lab API, S&W, Sulf
	DOE Lake Charles Meter station (Shell 22") –> Pipeline	DOE Lake Charles meter station (Shell 22" P/L valve connection)	DOE Lake Charles meter (Shell 22")	DOE Lake Charles in-line sampler (Shell 22")	(DOE) West Hackberry lab API, S&W, Sulf or (M&O) DOE Contr. lab API, S&W, Sulf
	SPR Site –> Shell 20" (Designated meter station)	P/L valve connection between Shell 20 p/l and DOE Pipeline	Shell 20" Designated meter or BH meter	Shell 20" Designated in-line sampler or BH inline sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Beaumont Terminal –> Pipeline	Beaumont Terminal Tank Flange	Beaumont Terminal Tank gauges	Beaumont Terminal tank composite sample	(M&O) DOE Contr. lab API, S&W, Sulf

FIGURE 4-3

DD 250 Transfer Quality/Quantity Measurement Locations

COMPLEX	DD 250 (-1) MOVEMENT	TITLE TFR and/or CUST TFR	PRIMARY MEASUREMENT	PRIMARY SAMPLE	LAB ANALYSIS
CAPLINE	Vessel –> St. James Terminal	Ship flange	St. James Terminal meter	St. James Terminal in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Capline/LOCAP/ShipShoal pipelines –> St. James Terminal	St. James Terminal meter station	St. James Terminal meter	St. James Terminal in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Capline/LOCAP/ShipShoal pipelines –> Red Stick Pipeline	St. James Terminal meter station	St. James Terminal meter	St. James Terminal in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	St. James Terminal –> Bayou Choctaw (via Red Stick P/L)	St. James Terminal meter station	St. James Terminal meter	St. James Terminal in-line sampler	(DOE) Bayou Choctaw lab or M&O Contract lab
	Bayou Choctaw –> Red Stick & St. James Terminal	Bayou Choctaw meter station	Bayou Choctaw meter station	Bayou Choctaw in-line sampler	(DOE) Bayou Choctaw lab or M&O Contract lab
SEAWAY	Vessel at Freeport –> Bryan Mound	Ship flange	Freeport dock meter	Freeport dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Vessel at Texas City –> Texas City Terminal	Ship flange	TC dock meter	TC dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Texas City –> Bryan Mound or reverse	P/L valve connection between Texas City and Bryan Mound	BM meter station	BM in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Genesis Texas City –> Bryan Mound or reverse	P/L valve connection between Genesis Texas City and Bryan Mound	Genesis Texas City meter station	Genesis Texas City in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Jones Creek –> Bryan Mound or reverse	Jones Creek Tank	Jones Creek Tank gauges	Jones Creek Tank composite sample	(M&O) DOE Contr. lab API, S&W, Sulf
	Bryan Mound –> Jones Creek thru Freeport dock	P/L valve connection between BM and Freeport	Freeport dock meter	Freeport dock in-line sampler	(M&O) DOE Contr. lab API, S&W, Sulf
	Quintana Station –> Bryan Mound	Bryan Mound meter	Bryan Mound meter	Bryan Mound inline sampler	Bryan Mound lab or M&O contract lab

FIGURE 4-3

DD 250 Transfer Quality/Quantity Measurement Locations

COMPLEX	DD 250 (-1) MOVEMENT	TITLE TFR and/or CUST TFR	PRIMARY MEASUREMENT	PRIMARY SAMPLE	LAB ANALYSIS
TEXOMA	Vessel/Barge –> NederlandTank via Nederland Dock [for dest. West Hackberry or Big Hill domestic - duty paid oil)	Vessel/Barge flange	Nederland dock meter	Dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Vessel/Barge –> NederlandTank via Docks and Barge Docks (for dest. West Hackberry or Big Hill domestic - duty paid oil)	Vessel/Barge flange	Nederland Tank gauges	Dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Vessel/Barge –> NederlandTank via Dock (for dest. Big Hill FTZ/NPF oil)	Vessel/Barge flange	Nederland: Nederland dock meter calculated by terminal personnel DOE: Nederland dock meter by 3rd Party Inspection Co.	Dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Vessel/Barge –> Nederland(DOE) Tank via Docks	Vessel/Barge flange	Nederland Terminal Meters or Tank gauges	Tank sample or dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Nederland Terminal Tank –> West Hackberry or Big Hill	P/L valve connection between Nederland Term P/L and DOE Pipeline	DOE meters or Nederland Tank gauges	DOE inline sampler or Tank composite sample	(M&O) DOE Contr. Lab API, s&w, Sulf.
	NederlandTank –> Big Hill FTZ/ NPF oil [originally rec'd via Sun Dock	P/L valve connection between Nederland Term P/L and DOE Pipeline	Nederland: Nederland Dock certified meter, plus the shore tank differential BH: Big Hill site meter (FTZ)	Nederland: Nederland Dock In-line sampler BH: BH site in-line sampler (FTZ)	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Nederland TerminalTank –> Big Hill FTZ / NPF oil [originally rec'd via Sun Docks and Barge Docks]	P/L valve connection between Nederland Term P/L and DOE Pipeline	DOE meters or Nederland Tank gauges BH: Big Hill site meter (FTZ)	DOE inline sampler or Tank composite sample BH: BH site in-line sampler (FTZ)	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Beaumont Terminal → Big Hill	Tank Flange	Beaumont Tank	Beaumont Tank	(M&O) DOE Contr. Lab API, s&w, Sulf

FIGURE 4-3

DD 250 Transfer Quality/Quantity Measurement Locations

COMPLEX	DD 250 (-1) MOVEMENT	TITLE TFR and/or CUST TFR	PRIMARY MEASUREMENT	PRIMARY SAMPLE	LAB ANALYSIS
	West Hackberry –> Nederland Terminal Tank	P/L valve connection between Nederland Terminal P/L and DOE Pipelines	Nederland Terminal Meters or Tank gauges	Tank sample or dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Big Hill –> Nederland Terminal) Tank	P/L valve connection between Nederland Terminal P/L and DOE Pipeline	DOE Meters or Tank gauges - BH site meter (FTZ)	Tank sample or dock in-line sampler	(M&O) DOE Contr. Lab API, s&w, Sulf.
	Big Hill to West Hackberry or West Hackberry to Big Hill	P/L valve connection between Big Hill P/L and West Hackberry P/L	BH site meter (FTZ)	Big Hill site in-line sampler (FTZ)	BH lab or (M&O) DOE Contr. Lab API, s&w, Sulf.
	Shell 22 Pipeline –> West Hackberry via DOE Lake Charles Meter Station (Shell 22)	DOE Lake Charles Meter Station (Shell 22)	DOE Lake Charles Meter (Shell 22)	DOE Lake Charles In-line sampler (Shell 22)	WH lab or (M&O) DOE Contr. Lab API, s&w, Sulf.
	Shell 20 –> Big Hill (FTZ)	P/L valve connection between Shell 20 p/l and DOE Pipeline	Big Hill site meter (FTZ)	Big Hill site in-line sampler (FTZ), including line fill up to connection point .	BH lab or (M&O) DOE Contr. Lab API, s&w, Sulf.
	Big Hill –> Beaumont Terminal	Tank flange	Beaumont Tank	Beaumont Tank	(M&O) DOE Contr. Lab API, s&w, Sulf.

APPENDIX 5

INVENTORY DOCUMENTS AND REPORTING

1. DOCUMENTATION REQUIREMENTS

Proper documentation of all inventory transactions must be maintained to provide accurate and current information on the location of all SPR crude oil. The responsibility for maintenance of proper documentation extends to contractor-owned, contractor-operated terminals having custody of SPR crude oil. All records and reports will be available for periodic inspection by representatives of DOE, SPRPMO, and/or the Management and Operating (M&O) contractor, or other U.S. Government representatives. Site Directors or Terminal Managers will be provided notification, written or by telephone, of planned visits.

2. OIL STORAGE SITES AND TERMINALS

a. Transaction Documents

All transaction documents that record the quantity and/or location of crude oil inventories will be maintained in files by the M&O contractor's Crude Oil Logistics (COL) department. These transaction documents will be summarized in the Crude Oil Valuation and Tracking System (COVATS) files for each mode of storage: tanks, pipelines, caverns, or mine. The files will contain the following documents:

(1) DD Form 250-1, Tanker/Barge Material Inspection and Receiving Report, supported by applicable tank gauging reports, or meter tickets, vessel ullage reports, calculation worksheets, and laboratory test reports.

(2) DD Form 250, Material Inspection and Receiving Report, supported by applicable tank gauging reports or meter tickets, calculation worksheets, and laboratory test reports if applicable.

(3) Documents covering changes in inventory due to spills, contamination, losses, and recovery of prior losses.

(4) The SPR COVATS Journal Records reflecting daily detail inventory changes and balances for each mode of storage: tanks, pipelines, and caverns or mines as applicable.

(5) A copy of the month-end SPR Petroleum Inventory Report.

(6) A copy of the calendar year-end SPR Petroleum Inventory Report.

b. COVATS Journal Records

Transactions will be summarized in the COVATS Journal Records for each mode of storage: tanks, pipelines, caverns, or mine. At each site or terminal, journal records will be maintained for each cavern, tank, and pipeline within the terminal or site by crude oil type (sweet/sour). Figure 5-1 shows the journal record categories required for each site and terminal.

Additional records may be kept for internal control if deemed necessary. These records will be maintained to reflect each day's activity and a running "book" balance of inventories. At the end of each month, after the last day's activity has been recorded, the journal records will be totaled and balanced, and a copy printed for filing with the month's inventory report. The tank physical inventory will be taken and compared with the tank's book inventory. Any variance between the two figures will represent a tank operating gain or loss for the month. It is recognized that only the tanks can be physically gauged to determine actual tank inventory on hand. The pipeline inventory will normally be a static figure, once the lines are packed and air free. The book and physical inventories are the same for caverns and pipelines. The ending physical inventory for each month will become the opening book inventory, or first entry, in the next month's journal record sheet(s).

c. Reports

(1) Daily

Formal daily reports will be limited to submission of all inventory transaction documents: DD Forms 250 and 250-1, with supporting documents on the date of preparation. These transactions will be entered into COVATS with supporting documentation and original documents will be distributed by mail in accordance with Appendix 6. The SPRPMO will obtain informal reports by telephone as required.

FIGURE 5-1
JOURNAL RECORDS FOR SITE/TERMINALS

SITE/TERMINAL	REQUIRED RECORDS AND SUBSIDIARY RECORDS
Bayou Choctaw	Site Total Inventory (Control) • Total Cavern Inventory Control - Each Cavern • Total Pipeline Fill - Site Lines - Cross Country Line
Big Hill	Total Site Inventory (Control) • Site Surge Tank Inventory • Total Cavern Inventory Control - Each Cavern • Total Pipeline Fill - Site Lines - Cross Country Line
Bryan Mound	Site Total Inventory • Total Cavern Inventory Control - Each Cavern • Total Tank Inventory (Control) - Site Tank Inventory • Total Pipeline Fill (Control) - Site Lines - Cross Country Lines -- To Freeport Docks -- To Jones Creek Tank Farm -- To Texas City Terminal -- Other (As Required)
St. James Leased Facility - Contractor Operated	Terminal Total Inventory (Control) • SPR Tank Inventory • SPR In-Terminal Pipeline Fill

SITE/TERMINAL	**REQUIRED RECORDS AND SUBSIDIARY RECORDS**
Terminals - Contractor Owned - Contractor Operated	Total SPR Inventory (Control) • SPR Tank Inventory • SPR In-Terminal Pipeline Fill
West Hackberry	Total Site Inventory (Control) • Site Surge Tank Inventory • Total Cavern Inventory Control - Each Cavern • Total Pipeline Fill - Site Lines - Cross Country Lines - Lake Charles Meter Station • DOE Lake Charles Pipeline (Texas 22)

(2) Monthly

(a) Each SPR terminal and storage site will prepare a monthly SPR Petroleum Inventory Report (Appendix 11) reflecting journal record balances in net barrels at 60°F for each mode of storage by crude oil type (sweet/sour). The report will be prepared as of the close of business the last day of the month, and E-mailed to the M&O contractor's Crude Oil Accountant, COL, New Orleans, Louisiana, to arrive on or before the tenth (10^{th}) day of the following month. The signed report with supporting documents will be mailed no later than the tenth (10^{th}) day of the following month to the M&O contractor's Crude Oil Accountant, New Orleans, Louisiana. Appendix 11 includes instructions for completing the SPR Monthly Inventory Report.

(b) Supporting documents required for monthly reports:

1) Sites with caverns only -- None.

2) Terminals and sites with storage tank -- One copy of the tank inventory ticket and a copy of the laboratory report. A sample of the form is included in Appendix 12. The remarks section on the form should include an indication as to whether the tank is out of services or in service. If in-service, specify whether sweet or sour is stored.

d. Monthly Physical Inventory

A physical "ending" inventory of all SPR-owned petroleum in terminal and site tanks will be taken and witnessed by the (GR), as of 2400 hours (midnight) on the last day of each month, or at an earlier time/date if circumstances preclude taking it at this time. Inventories of SPR-owned petroleum in a terminal, as well as sites which are inactive, can be inventoried prior to the last day of the month but no more than 5 working days prior to month-end.

A composite sample from each tank inventoried will be tested for American Petroleum Institute (API) Gravity at 60°F, Sediment and Water (S&W), and Sulfur in accordance with American Society of Testing Materials (ASTM) or API procedures as outlined in SPRPMO O 413.3, Change 2. Month-end tank inventory samples must be processed (collected, handled, and analyzed) by the first work day following collection of the sample. It is recognized that oil movements may be in progress at month-end, at which time the following procedures will be used.

When a shipment/receipt is in progress over the last day of the month, the shore tanks should be gauged for the month-end inventory as close to 2400 as practicable on the last day of the month, but always before (not during) the receipt or shipment. The last receipt or shipment completed during the month should be annotated as "Final shipment/receipt for (month, year)" on the related DD Form 250 or 250-1. The inventory then remaining in a tank will be the closing physical inventory of that tank for the month then ended. The shipment/receipt in process during the inventory period will be recorded in the following month. This physical inventory is for the purpose of reconciling Journal Records with the actual quantity on hand. Volume measurements will be adjusted to Net Standard Volume (NSV) by deducting the S&W percent determined by testing. At Bryan Mound, inventories for site tanks will be determined in accordance with Appendix 3, Section 5. The Journal Records will be adjusted by the COVATS monthly rollover performed in New Orleans and excess variances (gain/loss) will be explained and processed in accordance with Appendix 1, Section 7. An excessive operational variance results when an ending physical terminal inventory varies from the ending book inventory by more than 0.40 percent or other percentage established in a contractor-owned, contractor-operated terminalling contract.

e. SPR Cross-Country Pipeline Inventories

The SPR cross-country pipeline inventories (unless vacated or leased) shall be reported at the M&O contractor engineering calibrated/computed capacities. Pipeline administrative adjustments shall be created at the end of each month, correcting the pipeline book inventories to the official capacities. These adjustments shall be performed in conjunction with the caverns/tanks that have received or transferred oil through the pipeline during the month.

Fluctuations in cross-country pipeline inventories may occur due to seasonal temperatures. During these times, pipeline inventories may exceed the official pipeline capacities which therefore require no adjustment to inventory if shipments cannot be reasonably allocated to cavern(s) of origin. Prior authorization is required by request. Requests will be emailed to M&O COL with an explanation as to why no adjustments are needed. M&O COL will forward to COMT for final approval. A footnote will be incorporated on the COVATS crystal report explaining why inventory exceeds the official capacity.

The current official pipeline capacity volumes are as follows:

(1) Bayou Choctaw to St. James Terminal (Red Stick Pipeline) - 238,933 barrels.

(2) West Hackberry to Sun Marine Nederland Terminal – 371,037 barrels.

(3) West Hackberry to Lake Charles Meter Station/Shell 22-Inch Pipeline – 81,145 barrels.

(4) Bryan Mound to Freeport Dock – 17,177 barrels.

(5) Bryan Mound to Jones Creek Tanks – 18,018 barrels.

(6) Bryan Mound to Texas City Terminal – 363,594 barrels.

(7) Big Hill to Nederland Terminal – 155,448 barrels (inclusive of 233 contained in the SPLC tie-in lateral).

Note: Adjustments may require multiple entries from the cross-country pipeline into multi-caverns. These adjustments will require their own individual DD Form 250 as COVATS will not accept multi-line entries.

3. PROJECT MANAGEMENT OFFICE RESPONSIBILITIES

The Assistant Project Manager for Maintenance and Operations is responsible for oversight of the procedures relating to the crude oil accountability function at the SPRPMO and of the M&O contractor responsible for the processing of crude oil inventory documents, maintenance of required records, and preparation of reports. This includes all crude oil inventory transactions from the point where title passes to the U.S. Government to the point where title and custody are passed to another entity. That responsibility is delegated to the Director, Crude Oil, Drawdown Readiness, and Cavern Integrity Division who assigns direct responsibility to the Division's Crude Oil Management Team.

4. MANAGEMENT AND OPERATING CONTRACTOR

a. Examination of Documents

The M&O contractor will review for completeness, compliance with current procedures, and accuracy of calculations of DD Form 250 and 250-1 and monthly inventory reports. Any errors, omissions, or other inconsistencies discovered during this examination will be resolved through contact with the preparing party to include preparation of corrected documents and/or supporting papers as necessary. Any excess operating variances and all determinable losses reflected on reports will be given special attention to assure that proper and reasonable explanations are reported to SPRPMO. Actions required in Appendix 1, Section 7, will be initiated on all determinable losses exceeding 100 barrels and on any unexplained excess operating losses.

b. Processing and Recording

Following the entry of the monthly data into COVATS, the following reports will be generated and will be recorded in the crude oil inventory records described

below. The journals and ledgers may be manual or computer-generated, and other informal manually-kept records may also be required for ready reference.

As part of the monthly inventory reporting process, New Orleans prints a COVATS transaction report for all of the sites and compares to the COVATS monthly update listing for verification, New Orleans and/or the sites then inputs the physical tank inventories into COVATS, which updates the inventory, thereby incorporating tank gains and losses, for inventory final monthly balances to be reported.

(1) Daily Journals

A separate journal will be required for each complex (Capline, Seaway, and Texoma) to reflect in detail the daily oil movements and sweet and sour inventory balances by mode of storage (tank, pipeline, and cavern), in net barrels at 60°F (NSV). Columns will be provided for date of transaction, document identification, tank receipts, shipments, and balances; pipeline movements and inventories; cavern injections/ withdrawals; and balances by storage mode and total complex. The journals will be totaled and closed at the end of each month and will become the beginning balance for the following month (after completion of the COVATS monthly inventory closeout.

(2) Site Month-end Closing

At the end of each month all journal records will be totaled by COVATS to show the total month's activity. Each activity shall be supported by fully documented DD 250 reports. A monthly inventory report shall be generated from COVATS for each site. The report will be prepared in summary and detail and will contain a summary (by sweet and sour) of the month's activity broken out by caverns, tanks, and pipelines, and showing beginning inventory, net changes for the month, and ending inventories as of midnight on the last day of the month.

(3) Terminal Month-end Closing

At the end of each month all journal records will be totaled by COVATS to show the total month's activity. The terminal journal entries will be input by New Orleans personnel. The tank ending physical inventory, if applicable, will be entered on the next line in the same column and under the ending tank "Book" inventory. The operating variance (if any) will be calculated and entered on the next line, and the inventory will be adjusted to reflect the variance. The ending "Physical" tank inventory will become the opening "Book" tank inventory in the following month's journal. For other inventory columns, i.e., caverns and pipelines, the closing "Book" inventory will become the opening inventory for the next month. The "Total" closing inventory column will reflect the sum of tank, cavern, and

pipeline inventories. The closing columnar totals and operating variances will be posted to the appropriate general ledger accounts. Net receipts stated in NSV barrels of each generic crude as received will be entered in the appropriate column for the oil received and in the total receipt column. At month-end, all columns will be totaled by COVATS. The sum of the totals for all generic crudes must equal the total receipts for the month. The columnar totals will be posted to the appropriate general ledger accounts. The journal will be totaled and balanced at the end of each month. Monthly columnar totals will be posted to the appropriate General Ledger Accounts.

(4) Petroleum Inventory Records and Subsidiary Records

(a) Petroleum Inventory Record

A Petroleum Inventory Record (PIR) will be maintained for each SPR storage facility. Separate records will be maintained for each mode of storage (tank, pipeline, mine, and caverns) and for crude oil by type (sweet/sour) and generic name. The PIR is a formal, permanent record reflecting monthly summaries of inventory activity from inception of the SPR to the current date.

(b) Subsidiary Records

Subsidiary Records to the PIR will be maintained as necessary to provide details on specific locations, volumes, and type (sweet/sour) of SPR oil inventories, operational variances, determinable losses, individual cavern inventories, etc.

(5) Offshore SPR Inventory Accounts

This record will consist of a summary of all SPR-owned inventories in offshore storage facilities at the end of each month and will be reported on Page 1 (Summary) of the SPR Monthly Inventory Report as a one-line entry below the "Total Inventory on Hand" line, broken out by sweet, sour, and total. The input for the accounts will be DD Form 250-1, Tanker/Barge Loading and Discharge Reports, and monthly reports prepared by each terminal.

(6) Crude Oil Receipts by Type and Source (Reported Annually)

This is a record of the source, generic crude stream, and net barrels received, broken out by sweet and sour crudes, of all oil delivered to the SPR. This record will be maintained for each storage complex (i.e., Capline, Seaway, and Texoma) with separate accounts for sweet and sour

crudes. It provides updated totals by calendar year and is published in the Annual SPR Petroleum Inventory Report.

5. SPR INVENTORY ACCOUNT RECEIVABLE/ACCOUNTS PAYABLE

The programs implemented by DOE, e.g., RIK, Exchange, Deferrals, requires enhanced procedures for the recording of the SPR inventory balance. In addition to the physical barrels that are normally reported, the computed volume that is due the SPR shall also be recorded as "Accounts Receivable" barrels. The A/R associated with the SPR delivering Exchange barrels to contractors and the increased receivable associated with the deferral of the delivery of the barrels shall be booked as an Accounts Receivable to the SPR. On occasion, the volume of returned crude oil to the SPR exceeds volumes due. In such cases, an accounts payable balance will be created.

6. REPORTS

a. SPR Monthly Petroleum Inventory Report

The report will be prepared in summary and detail and will contain a summary of the month's activity broken out by caverns, tanks, and pipelines, and showing beginning inventory, net changes for the month, and ending inventories as of midnight on the last day of the month (see Appendix 11). The M&O contractor shall provide this report to the SPRPMO by the 10th working day following the report month. Working days are Monday through Friday. The SPRPMO will post this report on the SPR SharePoint site. The report is due by the 20th day following the report month. The SPRPMO Inventory Management Specialist of the Crude Oil Management Team will notify the Planning and Financial Management Division when the report has been approved and is available for review.

[1]Note: Working days are Monday through Friday.

b. Monthly COVATS Journals

The COVATS journals are the subsidiary detail ledgers that support the SPR Monthly Inventory report. These detail journals disclose the transactions for each inventory account (cavern, tank, pipeline, etc.) for that month. The COVATS journals are to be updated and available for review with the SPR Monthly Inventory Report.

c. Weekly/Monthly Energy Information Administration (EIA) Reports

Detailed instructions, updated periodically, are issued by EIA for preparation of each of the reports listed below.

(1) EIA-801 Weekly Refined Product Stock Report, completed by M&O contractor COL Division. The following procedures are used in publishing the EIA-801 Report weekly report:

(a) Print the Fill Report from the COVATS database.

(b) Create an Excel spreadsheet showing previous week's numbers plus any cargo Receipts/Shipments, Gains/Losses, and Remarks referencing cargoes scheduled/completed and receipt of actual documentation. Email to DOE PMO for verification prior to emailing the actual Report to the EIA.

(c) Upon approval from DOE PMO the EIA Report is submitted to the EIA.

(2) EIA-803 – Weekly Crude Oil Stock Report, completed by M&O contractor COL Division. The following procedures are used in publishing the EIA-803 Report weekly report:

(a) Print the Fill Report from the COVATS database.

(b) Create an Excel spreadsheet showing previous week's numbers plus any cargo Receipts/Shipments and Gains/Losses, and Remarks referencing cargoes scheduled/completed and receipt of actual documentation. E-mail to DOE PMO for verification prior to e-mailing the actual Report to the EIA.

(c) Upon approval from DOE PMO the EIA Report is submitted to the EIA.

(3) EIA-804 – Weekly Imports Report, completed by M&O contractor's COL Division. The form EIA-804 is reported weekly to the Energy Information Administration (EIA). Any SPR crude oil that is imported from a foreign country where the SPR is the importer of records is reported on this form. Receipt of a foreign crude is reported in the week the documentation of the cargo is received. The documentation is required to be received within five days of completion of discharge of the vessel. Information used in generating the report is obtained from the M&O contractor's Crude Oil Scheduler and a copy of the DD 250 from the Crude Oil Accountant. A copy of the form is forwarded to the DOE PMO for verification prior to being sent to EIA.

(4) EIA-813 – Monthly Crude Oil Report due by the 20th of the month, completed by M&O Crude Oil Logistics.

(5) EIA-814 - Monthly Imports Report due by 20th of the month, completed by M&O Crude Oil Logistics.

(6) EIA-856 - Monthly Foreign Crude Oil Acquisition Report due by 20th of the month, completed by DOE Inventory Management Specialist.

d. Actual Oil Inventory Summary Report

This is a fill report which summarizes the ending inventory of each SPR storage complex by mode of storage (i.e., caverns, tanks, and pipelines) and by sweet and sour crudes. Each mode and the total inventory are totaled by crude type (sweet/sour). The final figure is the Grand Total of all complexes (total SPR). This report is performed during periods when the SPR is receiving or delivering oil or as requested.

e. Year-End Inventory Report

This is a multi-part report which summarizes the total SPR activity and SPR terminal operations for the calendar year; provides data on crude oil inventories by storage complex and site from inception to date, by type of crude oil (i.e., sweet, sour, and Maya); details the generic crudes by name and quantity stored in each SPR complex; lists the sources, and quantities from each, of all crude oils received from inception of the SPR to date; and summarizes in-transit losses from foreign source to SPR terminals from inception to date. The due date for this report is the first working day of February each year for the report year ending December 31 of the prior year.

f. Weekly Inventory Report

The weekly SPR inventory report is generated from COVATS and is forwarded to the DOE PMO each Monday. It reflects the total inventory plus any changes from the previous week. The report also includes the NEHHOR, NGSR inventory and the barrels outstanding (due-ins and due-outs) for Exchange programs, etc. The information used in generating the report is obtained from the Weekly Inventory (detail) and the Verify Transaction reports printed from COVATS and copies of all DD 250s obtained from Crude Oil Logistics.

Manual line item adjustments are made to the report that do not affect the total SPR inventory reported. These manual adjustments include the following:

(1) Exchange due in and due out.

(2) Distributions between pipelines and caverns for recent oil transfers.

7. CRUDE OIL VALUATION AND TRACKING SYSTEM (COVATS)

COVATS is a PC-based computerized oil inventory and valuation system operated under a client/server system. COVATS allows remote entry of inventory data by site personnel for sites, with a control feature allowing New Orleans final approval into the official accounting inventory system. The sites will have the capability to enter transactions, scan supporting documentation and attach to transactions, run site inventory reports in order to balance and maintain their inventory accounts. This system also interfaces with multiple pricing house websites to allow pricing and valuation of SPR crude and heating oil to be tracked and stored.

8. ELECTRONIC FILING

SharePoint is a system that is used to augment the retention of records. This system stores COVATS generated documents, incoming and outgoing facsimile documents, including documents that are optically scanned. All documents supporting the receipt, transfer, and sale or exchange of crude oil will be maintained in this system.

9. AUDITS

All data and documentation pertaining to SPR oil accountability and inventory will be audited every year as to its adequacy and correctness by an independent Government organization or by a commercial firm.

10. DOCUMENT RETENTION

All SPR crude oil accountability documents generated as a result of a site transfer, new oil receipt, or drawdown/sale will be retained onsite until each annual audit is closed out, which is approximately one year after the audit period. Electronic copies of the documents will be entered into SharePoint and linked to transactions in COVATS, and the paper records will be transferred into permanent storage. Site working copy documents will be maintained for approximately one year after the audit period is completed and then destroyed.

APPENDIX 6

MATERIAL INSPECTION AND RECEIVING REPORT

DD Form 250, AUG 2000

MATERIAL INSPECTION AND RECEIVING REPORT	*Form Approved OMB No. 0704-0248*

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0248), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0248), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES.
SEND THIS FORM IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE DFARS, APPENDIX F-401.

1. PROCUREMENT INSTRUMENT IDENTIFICATION. (CONTRACT) NO.	(ORDER) NO.	6. INVOICE NO./DATE	7. PAGE	OF	8. ACCEPTANCE POINT

2. SHIPMENT NO.	3. DATE SHIPPED	4. B/L TCN	5. DISCOUNT TERMS

9. PRIME CONTRACTOR *CODE*		10. ADMINISTERED BY *CODE*	
11. SHIPPED FROM (if other than 9) *CODE*	FOB:	12. PAYMENT WILL BE MADE BY *CODE*	
13. SHIPPED TO CODE		14. MARKED FOR *CODE*	

15. ITEM NO.	16. STOCK/PART NO. DESCRIPTION *(Indicate number of shipping containers - type of container - container number.)*	17. QUANTITY SHIP / REC'D *	18. UNIT	19. UNIT PRICE	20. AMOUNT
		.			

21. CONTRACT QUALITY ASSURANCE

A. ORIGIN

☐ CQA ☐ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.

_____ _____

DATE SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

B. DESTINATION

☐ CQA ☐ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.

_____ _____

DATE SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

22. RECEIVER'S USE

Quantities shown in column 17 were received in apparent good condition except as noted.

_____ _____

DATE RECEIVED SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME:

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

** If quantity received by the Government is the same, as quantity shipped, indicate by (x) mark; if different, enter actual quantity received below quantity shipped and encircle.*

23. CONTRACTOR USE ONLY

DD Form 250, AUG 2000 **PREVIOUS EDITION IS OBSOLETE.** ***U.S. GPO-1990-0-261-056/0303**

APPENDIX 6

PREPARATION OF DD FORM 250

MATERIAL INSPECTION AND RECEIVING REPORT

1. SPR SITE AND TERMINALS

DD Form 250 will be used to document all crude oil, NEHHOR, and NGSR movements and inventory adjustments, other than vessel movements. This includes all movements (shipments and receipts) between tanks and pipelines, and adjustments for determinable losses and for correction of records. All movements between tanks and pipelines will be supported by SPRPMO Form 416.1-1, SPR Calculation Worksheet for Tank Receipts/Shipments.

2. SITE RECEIPTS/CAVERN INJECTIONS

Each site will prepare DD Form 250 to document pipeline receipts and/or cavern injections of the quantity, in net barrels at 60°F, reported as shipped from the terminal tanks, and will include the distribution of such total barrels to the individual caverns. When distribution is to more than one cavern, the cavern meters will be used to determine the percentage of total received by each cavern. If meters are not available, or inoperable, the proration to caverns will be based on pump flow rates or other available media. The site meter reading and recording function must be coordinated with the terminal so that site meters can be read simultaneously with the start and end of pumping. At those times, the site totalizer meters and the site cavern meters will be read and recorded. The worksheet is provided for use in recording meter readings or flow rates and calculating the proration of total receipts to caverns.

3. SPECIFIC INSTRUCTIONS

The following step-by-step directions are provided for use in completing DD Form 250:

BLOCK 1 PROC. INSTRUMENT IDEN (CONTRACT)/(ORDER) NO. In the upper part of the block enter “DOE-owned crude oil”, “DOE-owned heating oil”, or “DOE-owned gasoline”.

BLOCK 2 SHIPMENT NO. Enter the sequential number composed as detailed in Appendix 2, Section 5.

BLOCK 3 DATE SHIPPED. Enter the date shipment was completed.

BLOCK 4 B.L. Leave blank.

BLOCK 5 DISCOUNT TERMS. Leave blank.

BLOCK 6 INVOICE NO. Leave blank.

BLOCK 7 PAGE __ OF __. Since a separate DD Form 250 is required for each pipeline tender, this will normally be "Page 1 of 1." However, if more than one page is required, DD Form 250C, a continuation sheet, will be used for the additional page(s). Pages will then be numbered consecutively, i.e., Page 1 of 2, Page 2 of 2, etc.

BLOCK 8 ACCEPTANCE POINT. Leave blank.

BLOCK 9 PRIME CONTRACTOR/CODE. Enter name and mailing address of the preparing site or M&O Contractor, and enter the related contract number in the space for CODE.

BLOCK 10 ADMINISTERED BY. Enter DOE-SPR.

BLOCK 11 PRIME CONTRACTOR. Enter name and address of the shipping site or terminal or other facility (usually the same as shown in Block 9). Leave CODE and FOB spaces blank.

BLOCK 12 PAYMENT WILL BE MADE BY. Leave blank.

BLOCK 13 SHIPPED TO: Enter the name and address of the consignee SPR facility (or in case of drawdown, the customer's name and address). Leave CODE space blank.

BLOCK 14 MARKED FOR. This will be filled in only when the shipment is consigned to other than the consignee shown in Block 13.

BLOCK 15 ITEM NO. Leave blank.

BLOCK 16 STOCK/PART NO./DESCRIPTION. Enter appropriate SPR crude oil stream (e.g., West Hackberry sour; Bryan Mound sweet; Bryan Mound Maya, Weeks Island sour, etc.) the API gravity, the percent S&W, sulfur, and the GSV shipped or received, as appropriate. For heating oil and gasoline releases, the type entered will be either "HEATING OIL" or "GASOLINE". GSV and NSV will be reported on both heating oil and gasoline and should always be the same quantity.

BLOCK 17 QUANTITY SHIPPED/RECEIVED. Enter the GSV or NSV, as appropriate, shipped or received as determined from the worksheet(s) used for quantity calculations. Attach the supporting worksheet to the DD Form 250.

BLOCK 18 UNIT. Use barrels (BBL).

BLOCK 19 UNIT PRICE. This will only be filled in by the M&O Contractor COL during fill and will include the unit price per barrel. Only used during crude oil fill program.

BLOCK 20 TOTAL AMOUNT OF PURCHASE. This will only be filled in by the M&O Contractor COL during fill. COVATS will automatically calculate this price. Only used during crude oil fill program.

BLOCK 21 (a) PROCUREMENT QUALITY ASSURANCE. Place an X in the appropriate acceptance box. The Government Representative, Site Director/Operations Manager, or Senior Site Representative (SSR) will date and sign the acceptance in block (A) or (B), as appropriate. The name and office will also be typed or printed under the signature on the master, or on all copies of the form.

(b) DOE SSR. Shall sign this form in all instances where loss of crude oil is recognized in the inventory account.

BLOCK 22 RECEIVER'S USE. This block on the receiver's DD Form 250 will be dated and signed by the Site Director/Terminal Manager, or his duly designated representative. The receiver will enter the date document is signed and sign the master, or on all copies of the form in the space provided. The name, title, and the office will also be typed or printed under the signature.

BLOCK 23 CONTRACTOR USE ONLY. This block will be used as needed for any required explanations and other information for which a specific space is not provided. For example, if the NSV is greater than the GSV, a statement should be included in this section to explain the situation since this is unusual. In addition, where required, the sample number of the crude oil sample(s) taken during the movement will be annotated in this block. Also, on intersite transfer, for example, for the receipt of crude oil from St. James to Bayou Choctaw, the Bayou Choctaw prepared DD-250 for the shipment would reflect the GSV and net figures provided by St. James in Blocks 16 and 17, respectively. Bayou Choctaw would annotate in this block the GSV quantity received according to the Bayou Choctaw volume calculations for measurement transfer comparisons. In the event that a Crude Oil Waiver is required, Block 23 of the DD 250 must contain a statement that DOE concurrence was given and by whom, also the date when DOE concurrence was given. Note, DOE concurrence by the Crude Oil Management Team must be obtained prior to DD 250 signature submittal and execution. Also, a copy of the DOE waiver request/concurrence must be attached to the DD 250 and retained on-file at the site and with M&O Crude Oil Logistics in New Orleans.

4. CORRECTIONS TO DD FORM 250

The appropriate individuals to verify corrections include the Government Representative (GR), Site Director, Operations Manager, or the SSR. Distribution of the corrected copies will be made to all original recipients. When errors are discovered on the form, the phrase "Corrected Copy" will be entered at the top of the form. A single stroke will be drawn through any incorrect entry and the correct information will be entered as near the incorrect entry as possible. The correct information will then be circled. If the error affects either payment or accountability, the phrase "CORRECTIONS VERIFIED" will be entered where space permits on the form and signed by the person who verified the correction(s). Corrections made in COVATS after DOE approval will be communicated with COMT prior to making changes. Adjusting entries into COVATS will need to be documented and approved by COL Manager and or O&M Director. Documentation of this dual control measure per instance will be stored in SharePoint.

The following guidance pertaining to DD 250 adjustments/corrections of meter factors after oil movements:

Cargo Administrative DD 250 Adjustments:

- In Block 2, use B to denote a correction to the cargo number (BLD or BDS).
- In Block 3, use the current time period - we want to include these in the inventory.
- In Blocks 16 and 17, put the adjustment barrels only.
- In the Remarks section, reference original cargo number, date delivered and the corrected GSV and NSV numbers and reason for the correction.
- Copies of the original DD 250, with backup documentation, will be added to the adjusted DD 250 package along with all new documentation.

5. DISTRIBUTION

Completed DD Form 250s will be distributed as set forth in the following table. Upon completion of the shipment or delivery, the original DD 250 with supporting documents will be forwarded to the M&O contractor, Attention: Crude Oil Accountant no later than the 10 days after the delivery is completed. Copies will be furnished to DOE upon request.

TABLE 6-1
DISTRIBUTION OF DD FORM 250 - For Pipeline Shipments/Receipts

PART I. SHIPPING TERMINAL/SITE

RECIPIENT	Number of Copies
Shipping Terminal	(as required)
Government Representative at the Shipping Terminal	1
Pipeline Company (for shipments via commercial pipeline only)	(as required)
For commercial pipeline shipments, to office issuing bill of lading.	(as required)
M&O Contractor[1] ATTN: Crude Oil Logistics 850 South Clearview Parkway New Orleans, LA 70123	1 (original)
U.S. Department of Energy Strategic Petroleum Reserve Project Management Office ATTN: Crude Oil Management Team 900 Commerce Road East New Orleans, LA 70123	(as required)

PART II. RECEIVING TERMINAL/SITE

RECIPIENT	
M&O Contractor[1] ATTN: Crude Oil Logistics 850 South Clearview Parkway New Orleans, LA 70123	1 (original)
Receiving Site/Terminal	(as required)
Government Representative (if applicable) at the receiving site/terminal	1

[1] Insert name of M&O Contractor.

APPENDIX 7
FINANCIAL LIABILITY INVESTIGATION OF PROPERTY LOSS, DD FORM 200

FINANCIAL LIABILITY INVESTIGATION OF PROPERTY LOSS

PRIVACY ACT STATEMENT

AUTHORITY: 10 USC 2775; DoD Directive 7200.11; EO 9397.

PRINCIPAL PURPOSE(S): To officially report the facts and circumstances supporting the assessment of financial charges for the loss, damage, or destruction of DoD-controlled property. The purpose of soliciting the SSN is for positive identification.

ROUTINE USE(S): None.

DISCLOSURE: Voluntary; however, refusal to explain the circumstances under which the property was lost, damaged, or destroyed may be considered with other factors in determining if an individual will be held financially liable.

1. DATE INITIATED *(YYYYMMDD)*	2. INQUIRY/INVESTIGATION NUMBER	3. DATE LOSS DISCOVERED *(YYYYMMDD)*

4. NATIONAL STOCK NO.	5. ITEM DESCRIPTION	6. QUANTITY	7. UNIT COST	8. TOTAL COST
				0

9. CIRCUMSTANCES UNDER WHICH PROPERTY WAS *(X one)* ☐ LOST ☐ DAMAGED ☐ DESTROYED
(Attach additional pages as necessary)

10. ACTIONS TAKEN TO CORRECT CIRCUMSTANCES REPORTED IN BLOCK 9 AND PREVENT FUTURE OCCURRENCES *(Attach additional pages as necessary)*

11. INDIVIDUAL COMPLETING BLOCKS 1 THROUGH 10

a. ORGANIZATIONAL ADDRESS *(Unit Designation, Office Symbol, Base, State/Country, Zip Code)*	b. TYPED NAME *(Last, First, Middle Initial)*	c. DSN NUMBER
	d. SIGNATURE	e. DATE SIGNED

12. *(X one)* ☐ **RESPONSIBLE OFFICER (PROPERTY RECORD ITEMS)** ☐ **REVIEWING AUTHORITY (SUPPLY SYSTEM STOCKS)**

a. NEGLIGENCE OR ABUSE EVIDENT/ SUSPECTED *(X one)* ☐ YES ☐ NO	b. COMMENTS/RECOMMENDATIONS	
c. ORGANIZATIONAL ADDRESS *(Unit Designation, Office Symbol, Base, State/Country, Zip Code)*	d. TYPED NAME *(Last, First, Middle Initial)*	e. DSN NUMBER
	f. SIGNATURE	g. DATE SIGNED

13. APPOINTING AUTHORITY

a. RECOMMENDATION *(X one)* ☐ APPROVE ☐ DISAPPROVE	b. COMMENTS/RATIONALE	c. FINANCIAL LIABILITY OFFICER APPOINTED *(X one)* ☐ YES ☐ NO
d. ORGANIZATIONAL ADDRESS *(Unit Designation, Office Symbol, Base, State/Country, Zip Code)*	e. TYPED NAME *(Last, First, Middle Initial)*	f. DSN NUMBER
	g. SIGNATURE	h. DATE SIGNED

14. APPROVING AUTHORITY

a. RECOMMENDATION *(X one)* ☐ APPROVE ☐ DISAPPROVE	b. COMMENTS/RATIONALE	c. LEGAL REVIEW COMPLETED IF REQUIRED *(X one)* ☐ YES ☐ NO ☐ N/A
d. ORGANIZATIONAL ADDRESS *(Unit Designation, Office Symbol, Base, State/Country, Zip Code)*	e. TYPED NAME *(Last, First, Middle Initial)*	f. DSN NUMBER
	g. SIGNATURE	h. DATE SIGNED

APPENDIX 7

PREPARATION OF FINANCIAL LIABILITY

INVESTIGATION OF PROPERTY LOSS

1. Financial Liability Investigations of Property Loss forms will be required when:

   a. A determinable loss of SPR petroleum in excess of 100 net barrels occurs; or

   b. A quantity of SPR petroleum in excess of 100 barrels has become contaminated and is to be dropped from the SPR inventory.

   c. It is optional for use in reporting and investigating excessive operational variances.

2. DD Form 200 (Financial Liability Investigation of Property Loss) will be used to document the above described losses. Instructions for preparation of the form are set forth below:

Date	Date Initiated Inquiry Investigation Number (i.e., Big Hill Cavern 112 Degas Operation) Date Loss Discovered (or end of Degas Operation) Leave Blank Item Description (insert page if description too long), Quantity, Unit Cost, Total Cost.
Block 9	Circumstances Under Which Property was (x) one – Lost, Damaged, Destroyed. Give description of loss. (Attach additional page if needed.)
Block 10	Actions Taken to Correct Circumstances Reported in Block 9 and Prevent Future Occurrences.
Block 11	Individual Completing Blocks 1 through 10
Block 12	Responsible Officer (Property Record Items)
Block 13	Appointing Authority
Block 14	Approving Authority Financial Liability Officer. Individual charged.
Block 17	Accountable Officer.

3. Attach available documents to support all statements on the DD Form 200, including quantity calculations, statements of witnesses, photographs, if applicable, and any other documents that have a bearing on the purpose of the form.

4. Submit the original DD Form 200 and supporting documents to U.S. Department of Energy, Strategic Petroleum Reserve Project Management Office, Crude Oil Team, Attention: Inventory Management Specialist, 900 Commerce Road East, New Orleans, Louisiana 70123.

5. The Inventory Management Specialist will review the Financial Liability Investigation of Property Loss and support documents and take action as outlined in the Order.

APPENDIX 8
SPR CALCULATION WORKSHEET FOR TANK RECEIPTS/SHIPMENTS
SPRPMO F-416.1-1 (REV. 05/10)

SPR CALCULATION WORKSHEET FOR TANK* * ☐ RECEIPTS ☐ SHIPMENTS **CHECK (√) APPROPRIATE BOX			TERMINAL/SITE NAME AND ADDRESS: TANK NUMBER SUPPORT FOR DD 250 SERIES DOCUMENT NUMBER: (IF APPLICABLE)		
NAME OF VESSEL, PIPELINE OR CAVERN NUMBERS:					
OPENING CALCULATION			CLOSING CALCULATION		
1. DATE	1A. TIME		12. DATE	12A. TIME	
2. API	2A. BS&W %	2B. TEMPERATURE °	13. API	13A. BS&W %	13B. TEMPERATURE °
3. GAUGE FT. IN.=		BBLS	14. GAUGE FT. IN.=		BBLS
4. WATER CUT* FT. IN.=		BBLS	15. WATER CUT* FT. IN.=		BBLS
5. ROOF CORRECTION (OBSERVED GRAVITY_____)		BBLS	16. ROOF CORRECTION (OBSERVED GRAVITY_____)		BBLS
6. GROSS @ AMBIENT OPENING		BBLS	17. GROSS AMBIENT CLOSING		BBLS
7. TEMPERATURE (°F)	7A. FACTOR		18. TEMPERATURE (°F)	18A. FACTOR	
8. GROSS @ 60° OPENING		BBLS	19. GROSS @ 60° CLOSING		BBLS
9. LESS OPENING BS&W*		( ) BBLS	20. LESS CLOSING BS&W*		( ) BBLS
10. OPENING NET @ 60°*		BBLS	21. CLOSING NET @ 60°*		BBLS
11. GROSS @ 60° RECEIVED/SHIPPED (DIFFERENCE BETWEEN ITEMS 8 & 19)		BBLS	22. NET @ 60° RECEIVED/SHIPPED* (DIFFERENCE BETWEEN ITEMS 10 & 21)		BBLS
TANK SETTLING TIME WAS: _____ HOURS; OR CHECK (√) ☐ MORE THAN 24 HOURS			TANK SETTLING TIME: HOURS		
REMARKS			**REMARKS** *When an in-line sampler is used, omit steps 4, 9, 10, & 15, 20 thru 22 and use the following: GROSS @ 60°F (ITEM 11) RECEIVED/SHIPPED: _____ BBLS LESS LINE SAMPLE BS&W _____%: ( ) BBLS NET @ 60° RECEIVED/SHIPPED: _____ BBLS		
SIGNATURES FOR OPENING CALCULATIONS			SIGNATURES FOR CLOSING CALCULATIONS		
TERMINAL/CONTRACTOR'S REPRESENTATIVE			TERMINAL/CONTRACTOR'S REPRESENTATIVE		
WITNESS			WITNESS		

SPRPMO-F-416.1-1 (REV. 05/10)

APPENDIX 9

SPR CALCULATION WORKSHEET, MULTIPLE CAVERN INJECTIONS

SPRPMO F-416.1-2 (REV. 06/02)

SPR CALCULATION WORKSHEET

MULTIPLE CAVERN INJECTIONS

1. SPR SITE	2. SUPPORTING DOCUMENT FOR FORM DD 250 NO.	3. DATE
4. SHIPPING TERMINAL AND TANK NUMBER(S)	5. TERMINAL SHIPPING DOCUMENT DD 250 NO. DATE	6. BARRELS @ 60°F. SHIPPED GROSS NET
7. BARRELS @ 60° RECEIVED AND INJECTED GROSS NET	8. PERIOD OF INJECTION: 8A. FROM: DATE TIME 8B. TO: DATE TIME	

9. CALCULATIONS FOR PRORATING THE TOTAL NET BARRELS @ 60°F. TO THE INDIVIDUAL RECEIVING CAVERNS

9A. DETERMINATION OF INDIVIDUAL CAVERN GROSS BARRELS RECEIVED BASED ON MEASURING DEVICES USED (MAKE ENTRIES ONLY IN COLUMNS FOR METHOD USED.*)

METER/ PUMP NUMBER	RECEIVING CAVERN NUMBER	METER READINGS (IF USED)*		PUMPS (IF USED)*		CALCULATED GROSS BARRELS NUMBER
		OPEN	CLOSE	RATE (BBLS/HR)	NUMBER	

TOTAL GROSS BARRELS INJECTED

9B. CALCULATION OF PERCENT OF TOTAL BARRELS INJECTED TO BE ADDED TO THE INVENTORY OF EACH RECEIVING CAVERN

NUMERATOR (a) IS THE GROSS BARRELS METERED/CALCULATED FOR EACH CAVERN IN 9A.

DENOMINATOR (b) IS THE TOTAL GROSS BARRELS FOR ALL CAVERNS IN 9A.

CAVERN NUMBER	QTY. RECEIVED (a) / TOTAL QUANTITY (b)		% ROUNDED AT 3rd DECIMAL		TOTAL BARRELS @ 60°F. PER TANK GAUGES GROSS	NET	CAVERN INJECTION BARRELS @ 60°F. GROSS	NET
	_____	=	X			=		
	_____	=	X			=		
	_____	=	X			=		
	_____	=	X			=		
	_____	=	X			=		
	_____	=	X			=		
TOTAL INJECTION (MUST EQUAL BLOCK 6 & 7 TOTAL)								

PREPARED BY:		DATA FURNISHED BY:	
_____	_____	_____	_____
NAME	DATE	NAME	DATE

SPRPMO F-416.1-2 (Rev. 06/02)

APPENDIX 10
SPRPMO F-416.1-3 (REV. 08/12)
STRATEGIC PETROLEUM RESERVE CRUDE OIL DELIVERY REPORT

1. SALES CONTRACT NUMBER	2. TERMINAL REPORT NUMBER	3. CARGO NUMBER
4. DATE DELIVERED	5. TRANSPORTATION MODE ☐ TANKER ☐ BARGE ☐ PIPELINE	6. ACCEPTANCE POINT ☐ ORIGIN ☐ DESTINATION
7. PRICE DATE		
8. SHIPPING SPR SITE/TERMINAL	9. PURCHASER-NAME AND ADDRESS	10. CARRIER

11. CONTRACT LINE ITEM MLI	DLI	12. DESCRIPTION OF CRUDE OIL AND GROSS BBLS	13. API GRAVITY	14. TOTAL SULPHUR %	15. DEL'D NET BBLS @ 60°F	16. UNIT PRICE	17. AMOUNT DUE
18. QUALITY ADJUSTMENT - INCREASE/(DECREASE) 18A. NET API GRAVITY/SULFUR ADJUSTMENT FROM 18B/C (4) _____							

18B. CALCULATION OF API GRAVITY ADJUSTMENT		18C. CALCULATION OF SULFUR MASS % ADJUSTMENT	
(1) ADVERTISED API GRAVITY		(1) ADVERTISED SULFUR %	
(2) ALLOWED API GRAVITY (+/- 0.5°)		(2) ALLOWED SULFUR (+/- 0.10%)	
(3) DELIVERED API GRAVITY		(3) DELIVERED SULFUR %	
(4) API GRAVITY ADJUSTMENT $/BBL.		(4) SULFUR ADJUSTMENT $/BBL.	
Qlty. Table Computation Basis: Line (3) - Line (2)		Qlty. Table Computation Basis: Line (2) - Line (3)	

21. TIME STATEMENT	DATE	TIME
NOTICE OF READINESS TO LOAD		
VESSEL ARRIVED IN ROADS		
PILOT ON BOARD		
WEIGHED ANCHOR		
FIRST LINE ASHORE		
MOORED ALONGSIDE		
STARTED BALLAST DISCHARGE		
FINISHED BALLAST DISCHARGE		
INSPECTED AND READY TO LOAD		
CARGO HOSES CONNECTED		
COMMENCED LOADING		
STOPPED LOADING		
RESUMED LOADING		
FINISHED LOADING		
CARGO HOSES REMOVED		
VESSEL RELEASED BY INSPECTOR		
COMMENCED BUNKERING		
FINISHED BUNKERING		
VESSEL LEFT BERTH (ACTUAL OR ESTIMATED)		

19. CONTRACT MOD ADJUSTMENT

20. NET AMOUNT DUE

22. THE DELIVERED NET BARRELS, UNIT PRICE, PRICE DATE, QUALTIY ADJUSTMENT AND CONTRACT MOD ADJUSTMENT DUE HAVE BEEN VERIFIED.

SIGNATURE: _____

ACCOUNTABLE OFFICER

23. REMARKS

24. GOVERNMENT INSPECTOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THE (VESSEL CARGO) (PIPELINE SHIPMENT) WAS INSPECTED, DELIVERED AND ACCEPTED AS SHOWN HEREON.

DATE _____ SIGNATURE _____

NAME TYPED/PRINTED

25. RECEIPT IS ACKNOWLEDGED FOR THE QUANTITY AND QUALITY SHOWN HEREON:

DATE RECEIVED: _____

AGENT: _____

BY: _____

NAME/PRINTED

26. I CERTIFY THAT THE TIME STATEMENT SHOWN HEREON IS CORRECT.

SIGNATURE _____

MASTER OF VESSEL

SPRPMO F-416.1-3 (Rev. 10/10)

APPENDIX 10

PREPARATION OF SPRPMO F-416.1-3

STRATEGIC PETROLEUM RESERVE CRUDE OIL DELIVERY REPORT

1. SPR SITES AND TERMINALS

SPRPMO F-416.1-3 will be used by SPR sites and terminals to document only deliveries of SPR crude oil to purchasers during drawdown. The form will be supported by the meter or tank gauge tickets and appropriate worksheets used for quantity determination.

2. SPECIFIC INSTRUCTIONS

The following are block-by-block instructions for preparing SPRPMO F-416.1-3:

BLOCK 1	Sales Contract Number: Enter the number of the sales contract received from the SPR scheduler.
BLOCK 2	Terminal Report Number: No longer used. Enter “N/A” .
BLOCK 3	Cargo Number: Enter the cargo number as assigned by the scheduler.
BLOCK 4	Date Delivered: Enter the date delivery was completed. .
BLOCK 5	Transportation Mode: Auto populated by COVATS.
BLOCK 6	Acceptance Point: Auto populated by COVATS.
BLOCK 7	Price Date: Price Date will be the delivery completion date unless completion date occurs on a weekend or holiday. The next business day following the weekend and or holiday will be the Price Date.
BLOCK 8	Shipping SPR Site/Terminal: Auto populated by COVATS.
BLOCK 9	Purchaser Name and Address: Auto populated by COVATS.
BLOCK 10	Carrier: Enter the name of the tanker, barge company, or pipeline company as appropriate.

BLOCK 11	Contract Line Item: Auto populated by COVATS.
BLOCK 12	Description of Crude Oil and Gross BBLS: Enter name of the crude stream (e.g., SPR Bayou Choctaw Sweet, SPR Bryan Mound Sour, etc.), the sediment and water (S&W) percentage, and the gross barrels at 60°F.
BLOCK 13	API Gravity: Enter the API gravity at 60°F from the laboratory test report.
BLOCK 14	Total Sulfur Percent: Enter total percent sulfur from the laboratory test report.
BLOCK 15	Delivered Net BBLS at 60°F: Enter the net barrels at 60°F delivered to the purchaser.
BLOCKS 16 Through 20	Leave Blank. (Data will be generated/entered by SPR personnel based on data collected in the field.)
BLOCK 21	Time Statement. Report from third party will be included as a backup line item on the CODR inside of COVATS.
BLOCK 22	Accountable Officer : Delivered net barrels, unit price, price date, quality adjustment and contract mod adjustment due, will be verified by SPR Accountable Officer (physical or digital signature acceptable).
BLOCK 23	Remarks: Use this space to explain delays, responsible party, and other abnormalities associated with the delivery. For pipeline delivery, the commence and complete pumping dates and times will be entered in this block.
BLOCK 24	Government Inspector's Certificate: The Senior Site Representative or designee shall date and sign the completed form. The name shall also be typed or printed under the signature (physical or digital signature acceptable). See page 73 for alternative signatory procedure.
BLOCK 25	Receipt for Quantity and Quality: The purchaser's agent/designee (third party inspector or carrier receiving custody of the oil) shall date and sign for receipt of the crude oil. (physical or digital signature acceptable).
BLOCK 26	Certification by Master of Vessel: N/A

3. CORRECTIONS TO SPRPMO F-416.1-3

The appropriate individuals to verify corrections include the Government Representative, Site Director, Operations Manager, or the Senior Site Representative (SSR). Distribution of the corrected copies will be made to all original recipients. When errors are discovered on the form, the phrase "Corrected Copy" will be entered at the top of the form. A single stroke will be drawn through any incorrect entry and the correct information will be entered as near the incorrect entry as possible. The correct information will then be circled. If the error affects either payment or accountability, the phrase "CORRECTIONS VERIFIED" will be entered where space permits on the form and signed by the person who verified the correction(s).

TABLE 10-1
SPR DISTRIBUTION TABLES SPRPMO F-416.1-3

Type of Shipment	Recipient of Report	Number of Copies
Delivery to a pipeline or vessel for purchaser's account.	"Via Shipment" Consignee	As Required
	Master of Vessel for delivery (when Applicable) to a vessel	1
	Preparing Office	As Required
	Government Representative	1
	Third Party Inspector	1
	U.S. Department of Energy Strategic Petroleum Reserve Project Management Office ATTN: Crude Oil Management Team 900 Commerce Road East New Orleans, LA 70123	1 (original physical or digital signatures and supporting documents)
	M&O Contractor[1] Attn: Crude Oil Logistics 850 S. Clearview Parkway New Orleans, LA 70123	1

Notes: [1]Insert name of current M&O contractor.

APPENDIX 11
SPR PETROLEUM INVENTORY REPORT
(SPR Field Activity)

Reporting Location: BAYOU CHOCTAW
Unit of Measure: All Quantities are in Net Barrels

	Tank	Pipeline	Cavern	Total
1. BEGINNING INVENTORY				
2. RECEIPTS				
3. SUBTOTALS (1+2)				
4. SHIPMENTS / WITHDRAWALS				
5. DETERMINABLE LOSS (Spills, Contamination, etc.)				
6. ENDING BOOK INVENTORY				
7. ENDING PHYSICAL INVENTORY				
8. OPERATING GAIN / (LOSS) (7-6)				
9. GAIN / (LOSS) PERCENT (8/3)				

Remarks (Explain any entry on Line 5, and any Excess Operating Variance shown on Line 8.)

APPENDIX 11

SPR MONTHLY INVENTORY REPORT

1. GENERAL

This report is designed for use by all SPR terminals and sites for reporting monthly inventory changes and balances. Each preparing activity will use only those columns on the form which are applicable to the activity's operation.

2. REQUIRED SIGNATURES

All reports will be approved by the Site/Terminal Manager or in his absence, his duly authorized representative. The signature authority must be issued in writing and signed by the Site Director/Terminal Manager. Only persons so designated will be authorized to approve inventory transactions, documents and reports.

3. SUPPORTING DOCUMENTS

The report will be supported by the following:

a. A copy of each tank gauge ticket and calculation worksheet used to calculate the ending inventory quantity.

b. A copy of the laboratory test report(s) on the ending inventory.

4. CORRECTIONS TO MONTHLY INVENTORY REPORT

The appropriate individuals to verify corrections include the Government Representative, Site Director, Operations Manager, or the Senior Site Representative (SSR). Distribution of the corrected copies will be made to all original recipients. When errors are discovered on the form, the phrase "Corrected Copy" will be entered at the top of the form. A single stroke will be drawn through any incorrect entry and the correct information will be entered as near the incorrect entry as possible. The correct information will then be circled. If the error affects either payment or accountability, the phrase "CORRECTIONS VERIFIED" will be entered where space permits on the form and signed by the person who verified the correction(s).

5. DISTRIBUTION

Each SPR terminal and storage site will submit, by the 10th day of the following month, the original Monthly Inventory Report and supporting documentation to the M&O contractor, Attention: Crude Oil Accountant. Crude Oil Logistics will notify the Inventory Management Specialist when the report is available in COVATS.

6. SPR MONTHLY INVENTORY REPORT CREATED IN COVATS

The SPR Monthly Inventory Report that is created in the COVATS system incorporates three minor modifications in the form.

a. the SPR Monthly Inventory Report title is listed as “SPR Petroleum Inventory (SPR Field Activity)” in COVATS.

b. Lines Number 2, “Receipts in Tanks” and Number 3, “Pipeline/Cavern Receipts” are combined and reported as Number 2, “Receipts” in COVATS.

c. Lines Number 5, “Shipment from Tanks” and Number 6, “Withdrawals-Pipelines/Caverns” are combined and reported as Number 4, “Shipments/ Withdrawals” in COVATS.

APPENDIX 12

SPR TANK INVENTORY TICKET

SPRPMO F-416.1-4 (REV. 06/02)

STRATEGIC PETROLEUM RESERVE
TANK INVENTORY TICKET

LOCATION			
MEASUREMENTS AND CALCULATIONS			
TANK NO.		MONTH-END INVENTORY	
		OTHER (SEE REMARKS)	
DATE		TIME	
API @ 60°F	BS&W %	SULFUR %	
GAUGE FT.	IN =	BBLS	
WATER FT.	IN =	BBLS	
ROOF CORRECTION (OBSERVED API GRAVITY: _____)		BBLS	
GROSS @ AMBIENT		BBLS	
TEMPERATURE	TEMPERATURE FACTOR		
GROSS @ 60°F		BBLS	
LESS BS&W		BBLS	

NET @ 60°F BBLS
TANK SETTING TIME HOURS
REMARKS
SIGNATURES
TERMINAL CONTRACTOR'S REPRESENTATIVE
WITNESS

SPRPMO F-416.1-4 (Rev. 06/02)

APPENDIX 13
SPR VESSEL DISCHARGE RECORD
SPRPMO F-416.1-5 (REV. 06/02)

STRATEGIC PETROLEUM RESERVE VESSEL DISCHARGE RECORD	TYPE OF RECORD ☐ ARRIVAL ☐ SAILING (ROB)	NAME OF VESSEL	CARGO NUMBER	NAME OF TERMINAL
BERTH NUMBER	NAME OF PORT	PRODUCT	CONTRACT NUMBER(S)	

PRODUCT LINEAR MEASUREMENTS ARE IN *("X" ONE)* ☐ FEET ☐ METERS	DRAFT BEFORE LOADING/DISCHARGE FORE	DRAFT BEFORE LOADING/DISCHARGE AFT	DRAFT AFTER LOADING/DISCHARGE FORE	DRAFT AFTER LOADING/DISCHARGE AFT	AVG. PUMP RATE *(Barrels Per Hour)*	LIST CORRECTION(S) APPLIED TO CARGO ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO CARGO ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO FSW ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO ROB ☐ YES ☐ NO

	PORT								**CENTER**								**STARBOARD**							
TANK NO.	BBLS ROB	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS	BBLS ROB	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS	BBLS ROB	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
	TOTALS			**(A)**				**(D)**				**(B)**				**(E)**				**(C)**				**(F)**

GRAND TOTAL *(Port, Center, Starboard)*	CARGO PRODUCT *(TOV Barrels)* (A) + (B) + (C) =	CARGO WATER *(Barrels)*	REMAINING ON BOARD *(ROB)* BARRELS OF OIL:	REMAINING ON BOARD *(ROB)* BARRELS OF WATER:

CARGO DATA & FACTORS	**SEALS**	**SHIPBOARD CARGO CALCULATIONS**		**VESSEL ULLAGE COMPARISON**	**SHIP TO SHORE COMPARISON**
API @ 60°F	PORT SEA SUCTION	1. TOTAL GSV BBLS (D) + (E) + (F):	5. GSV BARRELS *(ITEM 3)*	1. POST LOADING GSV BARRELS + OBQ	1. VESSEL NSV BARRELS
S&W % BY VOLUME *(G)*	STARBOARD SEA SUCTION	2. REMAINING ON BOARD OR CARRY-AWAY	6. VESSEL EXPERIENCE FACTOR (SHIP / SHORE)	2. PRE-DISCHARGE GSV BARRELS + ROB	2. SHORE NSV BARRELS
			7. ADJUSTED GSV *(BLOCK 5 ÷ 6)*		
AVERAGE TEMPERATURE °F	GROSS LONG TONS CARGO	3. GSV BARRELS *(ITEMS 1-2)*	8. SEDIMENT & WATER BARRELS *(G X BLK 7)*	3. GSV BARRELS *(VARIANCE BETWEEN ITEMS 1 & 2)*	3. NSV BARRELS *(VARIANCE BETWEEN ITEMS 1 & 2)*
TABLE 11 FACTOR: *(H)*	NET LONG TONS CARGO *(H x BLK 9)*	4. LONG TONS FREE WATER (BBLS CARGO WATER ÷ 6.33)	9. NSV BARRELS *(ITEMS 7 - 8)*	4. GAIN OR LOSS PERCENTAGE _____ % GAIN _____ % LOSS	4. GAIN OR LOSS PERCENTAGE _____ % GAIN _____ % LOSS

DLA QA REPRESENTATIVE *(SIGNATURE AND DATE)* **TITLE**	**VESSEL REPRESENTATIVE** *(SIGNATURE AND DATE)* **TITLE**	**CONTRACTOR REPRESENTATIVE** *(SIGNATURE AND DATE)* **TITLE**

APPENDIX 14
SPR VESSEL LOADING RECORD
SPRPMO F-416.1-6 (REV. 06/02)

STRATEGIC PETROLEUM RESERVE VESSEL LOADING RECORD	TYPE OF RECORD ☐ ARRIVAL (OBQ) ☐ SAILING	NAME OF VESSEL	CARGO NUMBER	NAME OF TERMINAL
BERTH NUMBER	NAME OF PORT	PRODUCT	CONTRACT NUMBER(S)	

PRODUCT LINEAR MEASUREMENTS ARE IN *("X" ONE)* ☐ FEET ☐ METERS	DRAFT BEFORE LOADING/DISCHARGE FORE	DRAFT BEFORE LOADING/DISCHARGE AFT	DRAFT AFTER LOADING/DISCHARGE FORE	DRAFT AFTER LOADING/DISCHARGE AFT	AVG. PUMP RATE *(Barrels Per Hour)*	LIST CORRECTION(S) APPLIED TO CARGO ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO CARGO ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO FSW ☐ YES ☐ NO	TRIM CORRECTION(S) APPLIED TO ROB ☐ YES ☐ NO

	PORT								CENTER								STARBOARD							
TANK NO.	OBQ BBLS	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS	OBQ BBLS	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS	OBQ BBLS	ULLAGES FT.	ULLAGES IN.	TOV BARRELS	WATER IN.	WATER BBLS.	°F FACTOR	GSV BARRELS
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
		TOTALS		**(A)**				**(D)**				**(B)**				**(E)**				**(C)**				**(F)**

GRAND TOTAL *(Port, Center, Starboard)*	CARGO PRODUCT *(TOV Barrels)* (A) + (B) + (C) =	CARGO WATER *(Barrels)*	ON BOARD QUANTITY*(OBQ)* BARRELS OF OIL:	ON BOARD QUANTITY*(OBQ)* BARRELS OF WATER:

CARGO DATA & FACTORS	**SEALS**	**SHIPBOARD CARGO CALCULATIONS**		**VESSEL ULLAGE COMPARISON**	**SHIP TO SHORE COMPARISON**
API @ 60°F (G)	PORT SEA SUCTION	1. TOTAL GSV BBLS (D) + (E) + (F):	5. ADJUSTED GSV *(BLK 1 ÷ 4)*	1. POST LOADING GSV BARRELS + OBQ	1. VESSEL NSV BARRELS
S&W % BY VOLUME (H)	STARBOARD SEA SUCTION	2.	**6. BS&W BARRELS (H) X BLK 5:**	2. PRE-DISCHARGE GSV BARRELS + ROB	2. SHORE NSV BARRELS
			7. NSV BARRELS (BLK 5 - 6)		
TABLE 11 FACTOR: (J)	GROSS LONG TONS CARGO (K): (J) X 5:	3. FREE WATER (TOTAL BARRELS)	8. LONG TONS FREE WATER *(BLK 3 ÷ 6.33)*	3. GSV BARRELS *(VARIANCE BETWEEN ITEMS 1 & 2)*	3. NSV BARRELS *(VARIANCE BETWEEN ITEMS 1 & 2)*
	NET LONG TONS CARGO (L): (J) X 7:	4. VESSEL EXPERIENCE FACTOR (SHIP / SHORE)	9.	4. GAIN OR LOSS PERCENTAGE _____ % GAIN _____ % LOSS	4. GAIN OR LOSS PERCENTAGE _____ % GAIN _____ % LOSS

DOE QA REPRESENTATIVE *(SIGNATURE AND DATE)*	**VESSEL REPRESENTATIVE** *(SIGNATURE AND DATE)*	**CONTRACTOR REPRESENTATIVE** *(SIGNATURE AND DATE)*
TITLE	**TITLE**	**TITLE**

APPENDIX 15
TANKER BARGE MATERIAL INSPECTION AND RECEIVING REPORT
DD Form 250-1, NOV 92 (EG)

TANKER/BARGE MATERIAL INSPECTION AND RECEIVING REPORT	Form Approved OMB No. 0704-0248

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0248), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES.

SEND THIS FORM IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE DFASS, APPENDIX F-401.

1. TANKER/BARGE 2. ☐ LOADING REPORT ☐ DISCHARGE REPORT	2. INSPECTION OFFICE	3. REPORT NUMBER
4. AGENCY PLACING ORDER ON SHIPPER, CITY, STATE AND/OR LOCAL ADDRESS *(Loading)*	5. DEPARTMENT	6. PRIME CONTRACT OR P.O. NUMBER
7. NAME OF PRIME CONTRACTOR, CITY, STATE AND/OR LOCAL ADDRESS *(Loading)*		8. STORAGE CONTRACT
9. TERMINAL OR REFINERY SHIPPED FROM, CITY, STATE AND/OR LOCAL ADDRESS *(Loading)*		10. ORDER NUMBER ON SUPPLIER
11. SHIPPED TO *(Receiving Activity, City, State and/or Local Address)*		12. B/L NUMBER
		13. REQN. OR REQUEST NO. / 14. CARGO NO.

15. VESSEL	16. DRAFT ARRIVAL FORE AFT	17. DRAFT SAILING FORE AFT
18. PREVIOUS TWO CARGOES FIRST LAST	19. PRIOR INSPECTION	
20. CONDITION OF SHORE PIPELINE	21. APPROPRIATION *(Loading)*	22. CONTRACT ITEM NO.
23. PRODUCT	24. SPECIFICATIONS	

25. STATEMENT OF QUANTITY	LOADED	DISCHARGED	LOSS/GAIN	PER CENT
BARRELS *(42 Gals) (Net)*				
GALLONS *(Net)*				
TONS *(Long)*				

26.	STATEMENT OF QUALITY	
TESTS	SPECIFICATION LIMITS	TEST RESULTS

27. TIME STATEMENT	DATE	TIME	28. REMARKS *(Note in detail cause of delays such as repairs, breakdown, slow operation, stoppages, etc.)*
NOTICE OF READINESS TO LOAD DISCHARGE			
VESSEL ARRIVED IN ROADS			
MOORED ALONGSIDE			
STARTED BALLAST DISCHARGE			
FINISHED BALLAST DISCHARGE			
INSPECTED AND READY TO LOAD DISCHARGE			
CARGO HOSES CONNECTED			
COMMENCED LOADING DISCHARGE			
STOPPED LOADING DISCHARGING			
RESUMED LOADING DISCHARGING			
FINISHED LOADING DISCHARGING			
CARGO HOSES REMOVED			
VESSEL RELEASED BY INSPECTOR			
COMMENCED BUNKERING			
FINISHED BUNKERING			29. COMPANY OR RECEIVING TERMINAL
VESSEL LEFT BERTH *(Actual/Estimated)*			_____ *(Signature)*

30. **I CERTIFY THAT THE CARGO WAS INSPECTED, ACCEPTED AND LOADED/ DISCHARGED AS INDICATED HEREON.**	31. **I HEREBY CERTIFY THAT THIS TIME STATEMENT IS CORRECT.**
_____ *(Date)* _____ *(Signature of Authorized Government Representative)*	_____ *(Master or Agent*

APPENDIX 15

PREPARATION OF DD FORM 250-1

TANKER/BARGE LOADING AND DISCHARGE REPORT

1. GENERAL

The DD 250-1 Discharge Report for arriving cargoes shall be prepared in accordance with the following instructions. Abbreviations may be used where space is limited. Block numbers correspond to those on the form.

2. SPECIFIC INSTRUCTIONS

The following step-by-step directions are to be followed in completing DD Form 250-1 for tanker or barge discharge.

BLOCK 1 TANKER/BARGE. Line out TANKER or BARGE, as applicable, and place an X in the DISCHARGE REPORT box.

BLOCK 2 INSPECTION OFFICE. Enter name of the Government or other office inspecting the arriving cargo.

BLOCK 3 REPORT NUMBER. Reports shall be numbered consecutively using an alpha-numeric serial number provided by the SPR Scheduler.

BLOCK 4 AGENCY PLACING ORDER ON SHIPPER, CITY, STATE, AND/OR LOCAL ADDRESS (Loading). Enter the Government agency appearing in Block 4 of the Loading Report.

BLOCK 5 DEPARTMENT. Enter DOE.

BLOCK 6 PRIME CONTRACT OR PURCHASE ORDER NO. Enter the supply contract number appearing in Block 6 of the Loading Report for FOB origin cargoes, or from the contract for FOB destination cargoes.

BLOCK 7 NAME OF PRIME CONTRACTOR, CITY, STATE, AND/OR LOCAL ADDRESS. Enter name and address appearing in Block 7 of the Loading Report, or from the contract as applicable.

BLOCK 8 STORAGE CONTRACT. Enter the number of the contract under which terminalling services are being provided.

BLOCK 9 TERMINAL OR REFINERY SHIPPED FROM, CITY, STATE AND/OR LOCAL ADDRESS. Enter source of the cargo as shown in Block 9 of the Loading report, or from the supply contract, the ship's manifest, or Bill of Lading as appropriate.[1]

BLOCK 10 ORDER NO. ON SUPPLIER. Enter number appearing in Block 10 of the Loading Report, or from other available documents. [1]

BLOCK 11 SHIPPED TO: (Receiving Activity, City, State, and/or Local Address). Enter name of receiving contractor, name and location of contractor's receiving terminal.

BLOCK 12 B/L NUMBER. Leave blank.

BLOCK 13 REQUISITION OR REQUEST NUMBER. Leave blank.

BLOCK 14 CARGO NUMBER. Enter cargo number appearing in Block 14 of the Loading Report, or from other available documents.

BLOCK 15 VESSEL. Enter name of the tanker discharging cargo.

BLOCK 16 DRAFT ARRIVAL. Enter the vessel's draft on arrival.

BLOCK 17 DRAFT SAILING. Enter the vessel's draft after discharging.

BLOCK 18 PREVIOUS TWO CARGOES. Name/type of crude oil or other product.

BLOCK 19 PRIOR INSPECTION. Enter name and location of the Government or inspection office from Block 2 of the Loading Report, that inspected the cargo loading (FOB origin cargoes only).

BLOCK 20 CONDITION OF SHORE PIPELINE. Indicate condition of contractor's pipeline before and after discharge, i.e., full, slack, or empty.

BLOCK 21 APPROPRIATION. Leave blank.

[1] There will be no loading report on FOB destination cargoes.

BLOCK 22 CONTRACT ITEM NUMBER. Enter the number appearing in Block 22 of the Loading Report, or from other available document.

BLOCK 23 PRODUCT. Enter information appearing in Block 23 of the Loading Report, or other available document.

BLOCK 24 SPECIFICATIONS. Enter information appearing in Block 24 of the Loading Report, or other available document.

BLOCK 25 STATEMENT OF QUANTITY. Enter applicable data in proper columns.

(1) LOADED. On the first line in the LOADED column, enter the NSV appearing in Block 25 of the Loading Report. If the cargo is FOB destination, leave the LOADED column blank.

(2) DISCHARGED. The quantity discharged shall be determined from meter readings or shore tank gauges. Enter the NSV on the first line in the DISCHARGED column. In addition, enter the GSV, below the test data in Block 26.

(3) LOSS/GAIN. The difference between the NSVs LOADED and DISCHARGED will be computed and entered as a loss or gain. The inapplicable word in the heading (LOSS/GAIN) will be lined out. (FOB origin cargoes only).

(4) PERCENT (FOB origin cargoes only). The percent lost or gained will be calculated (by dividing the gain or loss by the loaded quantity) and entered in the PERCENT column in whole numbers and decimals as appropriate (i.e., one percent will be written as 1.0% and one-half percent will be written as 0.5%). If variance exceeds 0.40 percent, or other limit provided by the contract involved, the Government Representative will conduct an investigation to determine the cause, insofar as possible. If necessary, corrected documents will be prepared, otherwise an explanation will be entered in Block 28.

BLOCK 26 STATEMENT OF QUALITY.

(1) Enter all tests and the specification limits, including any authorized departures from those limits as indicated on the Loading Report or other appropriate document, and the test results and any required explanation or information.

(2) Enter data on GSV and Total Calculated Volume as required for Military Sealift Command use.

(3) Show product Remaining on Board (ROB) in gross barrels.

BLOCK 27 TIME STATEMENT. Complete all applicable entries in local time. Dates and times shall be taken from either the vessel's or shore facility's log. The Government Representative shall ensure that the entries in these logs agree. Date and time vessel left berth need not be entered on documents placed aboard the vessel, but shall appear on all other copies.

BLOCK 28 REMARKS. Use this space (if space is inadequate use Block 26 or reverse) to:

(1) Report delays, their cause and responsible party, vessel's discharge pressure at ship's rail.

(2) Explain reasons for any abnormal variances (exceeding allowable percent limit), (see Appendix 1), such as spillage line breaks, product remaining abroad, etc.

BLOCK 29 COMPANY OR RECEIVING TERMINAL. Type or print name of contractor's representative and have him sign the master or all copies of the form.

BLOCK 30 CERTIFICATION BY GOVERNMENT REPRESENTATIVE. Line out LOADED. The Government Representative shall date and sign the completed master, or all copies of the form, to signify inspection and acceptance by the Government. The name shall be typed or printed under the signature.

BLOCK 31 CERTIFICATION BY MASTER OR AGENT. Obtain the signature of the master or agent of the vessel.

NOTE: Block 31 signifies agreement to the TIME STATEMENT ONLY; therefore, only the TIME STATEMENT need be completed prior to this signing.

If the Master or agent refuses to sign, enter "Refused to Sign" in place of the signature. If the reason for the refusal is known, enter a brief explanation in Block 28, Remarks.

3. CORRECTIONS TO DD FORM 250-1

The appropriate individuals to verify corrections include the Government Representative, Site Director, Operations Manager, or the Senior Site Representative (SSR). Distribution of the corrected copies will be made to all original recipients. When errors are discovered on the form, the phrase "Corrected Copy" will be entered at the top of the form. A single stroke will be drawn through any incorrect entry and the correct information will be entered as near the incorrect entry as possible. The correct information will then be circled. If the error affects either payment or accountability, the phrase "CORRECTIONS VERIFIED" will be entered where space permits on the form and signed by the person who verified the correction(s).

4. REPORTING EXCESSIVE VARIANCES

An allowable variance of 0.40 percent between load and discharge quantities, or between ship and shore figures when loading or discharging vessels, has been established by reference a. This percentage will be considered the allowable limit of variance (gain or loss) except where other limits are established by contractual agreement. In any case, all excess variances will be immediately investigated by the Government Representative to the extent necessary to determine the cause or probable cause of the loss. If circumstances warrant, Report of Survey action will be initiated.

5. DISTRIBUTION

The original DD Form 250-1 will be forwarded to the M&O Contractor, Attention: Crude Oil Accountant within 10 days following delivery completion. Attached to the DD Form 250-1 will be all the backup documentation supporting the quantitative entries on the form. For new oil receipts, a laboratory report in support of the SPR quality characteristics will be required as a part of the backup documentation. The original supporting documentation will be forwarded with the original vessel or pipeline inspection report.

Table K-1 provides the distribution required for copies of DD Form 250-1s and supporting documentation.

TABLE 15-1
DISTRIBUTION OF DD-250-1 TANKER/BARGE MATERIAL INSPECTION AND RECEIVING REPORT/ATTACHED ULLAGE REPORTS

		NUMBER OF COPIES		
TYPE OF SHIPMENT	RECIPIENT OF REPORT	FOB-ORIGIN LOADING	FOB ORIGIN DISCHARGE	FOB-DESTINATION DISCHARGE
MSC Chartered Tankers and Barges	"Via Shipment"			
	Consignee	3	N/A	N/A
	Master of Vessel	1	1	1
	Inspector, Destination	1	1	1
	DOE Rep., Destination	1	1	1
	"Via Mail"			
	Supply Contractor	As Required	As Required	As Required
	Inspection Office, Loading	N/A	1	1
	Tanker Agent	As Required	As Required	As Required
	M&O Contractor ATTN: Crude Oil Logistics 850 South Clearview Parkway New Orleans, LA 70123	2	2	2

(Continued)

TABLE 15-1
(Continued)
DISTRIBUTION OF DD-250-1 TANKER/BARGE MATERIAL INSPECTION AND RECEIVING REPORT/ATTACHED ULLAGE REPORTS

TYPE OF SHIPMENT	RECIPIENT OF REPORT	NUMBER OF COPIES FOB-ORIGIN LOADING	FOB ORIGIN DISCHARGE	FOB-DESTINATION DISCHARGE
MSC Chartered Tankers and Barges	**Department of Energy, SPRPMO** Crude Oil Team, FE-4422 ATTN: Inventory Management Specialist 900 Commerce Road East New Orleans, LA 70123	1	3	3
	Chief Inspector, U.S. Customs P.O. Drawer D Freeport, Texas 77541		1 (Freeport Receipts Only)	1
	Chief Inspector, U.S. Customs 4550 75th Street Port Arthur, Texas 77640		1 (Nederland Terminal Receipts Only)	1
	Chief Inspector, U.S. Customs P.O. Box 490 Grammercy, LA 70052		1 (St. James Leased Facility Receipts Only)	1
	Chief Inspector, U.S. Customs P.O. Box 570 Galveston, TX 77553		1 (Texas City Terminal Receipts Only)	1
	U.S. Department of Energy Strategic Petroleum Reserve 1000 Independence Avenue, SW Washington, DC 20585 ATTN:	1	1	1

APPENDIX 16

SPR CRUDE OIL ANALYSIS
OSF 95-0005, 3/93 (REV. 12/95)

SPR **CRUDE OIL ANALYSIS**

1. SAMPLE SITE	2. SITE SAMPLE I.D.	3. DATE SAMPLE COLLECTED	4. SAMPLE TIME	5. ANALYSIS REQUIRED	6. PRIORITY NUMBER
7. SAMPLE DESCRIPTION					
8. CAVERN LEVEL	9. SAMPLE TYPE ☐ SWEET ☐ SOUR	10. ST. JAMES LOG NUMBER	11. DATE SAMPLE RECEIVED AT SJ	12. DATE ANALYSIS REPORTED BY SJ	

13. ANALYSIS

_____	1a. Specific Gravity @ 60°F (D1298 or D5002)	_____	7. BS&W (vol%) (D4007)
_____	1b. API Gravity @ 60°F (D287)	_____	8. Acid Neutralization Number (mg KOH/gm) (D664)
_____	1c. API Gravity @ 60°F (D5002)	_____	9. Flash Pt. (PMCC) (°F) (D93)
_____	2. Sulfur (wt%) (D4294)	_____	10a. Water by Distillation (vol%) (D4006)
_____	3. Pour Point (°F) (D97)	_____	10b. Water by Karl Fischer (vol%) (D4928)
_____	4. Salt (lb/Mbbl) (D3230)	_____	11a. Sediment by Extraction (vol%) (D473)
	5. Viscosity (D445, D446, D2161)	_____	11b. Sediment by Filtration (vol%) (D4807)
_____	SUS _____ cSt @ 77°F	_____	12. Organic Chloride Content (ppm)
_____	SUS _____ cSt @ 100°F	_____	13. N.O.R.M. (cst/min) (bkg = _____)
_____	6. Vapor Pressure, Mini Method (psi) (D5191)		

14. ELEMENTAL ANALYSIS *(ALL VALUES ARE ppm)*

_____ Arsenic (As)	_____ Cooper (Cu)	_____ Iron (Fe)	_____ Nickel (Ni)
_____ Phosphorous (P)	_____ Lead (Pb)	_____ Vanadium (V)	_____ Zinc (Zn)

15. Is the analysis COMPLETE? ☐ YES ☐ NO

16. Is the analysis a RERUN? ☐ YES ☐ NO

17. **REMARKS**

18. ANALYST FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL	ANALYST FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL	ANALYST FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL
19. WITNESS FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL	WITNESS FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL	WITNESS FOR TESTS *(CIRCLE ALL THAT APPLY)* 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ALL

OSF93-0005 3/93 REV. 12/95 **DISTRIBUTION TO BE MADE BY ST. JAMES LAB (EXCEPT GOLDENROD)** **WHITE**: ST. JAMES LAB/**GREEN**: SITE ACCOUNTABILITY CLERK/**CANARY:** RETURN TO ORIGINATING LAB/

PINK: CRUDE OIL CONTROL, NEW ORLEANS/**GOLDENROD**: ORIGINATING LAB KEEPS GOLDENROD COPY

APPENDIX 17
SPR OIL TRANSFER GOVERNMENT FORM SIGNATURE LIST, SPRPMO F-416.1-7

OIL MOVEMENT						DD 250 Block #			DD 250-1 Block #		
FROM	->	**TO**	**Primary Cust Meas Pt**	**TYPE**	**FORM**	**21a**	**21b**	**22**	**29**	**30**	**31**
CAPLINE											
Tanker (St. James)	->	SJ Term	SJ meter	New receipt - cargo no.	DD 250/DD 250-1	-	-	-	**2**	**12**	**18**
Ship Shoal PL	->	SJ Term	SJ meter	New receipt - cargo no.	DD 250		**12**	**2**			
Clovelly/Loop PL	->	SJ Term	SJ meter	New receipt - cargo no.	DD 250		**12**	**2**			
SJ Terminal Tank	->	BCSJPL	SJ meter	New receipt - cargo no.	DD 250		**12**	**2**			
SJ Terminal Tank	->	BCSJPL	SJ meter	St. James oil transfer	n/a	-	-	-			
BCSJPL	->	Bayou Choctaw	Bayou Choctaw meter	Oil transfer - SJPLBC	DD 250	**12**		**2**			
				Oil transfer - PLBC	DD 250		**12**	**16**			
Bayou Choctaw	->	BCSJPL	Bayou Choctaw meter	Oil transfer - BCSTSJ	DD 250	**12**		**16**			
				Oil transfer - BCSJPL	DD 250		**12**	**2**			
Bayou Choctaw	->	Bayou Choctaw	n/a	Oil transfer - BCBC	DD 250		**12**	**16**			
BC (Redstick Line Exchange)		St. James Teminal	SJ meter (basis line capacity for paper-split)	Oil transfer - BCSJPL	DD 250	**12**	**16**				
BC (Redstick Line Exchange)		St. James Terminal	SJ meter (basis line capacity for paper-split)	Oil transfer - cargo no.	DD 250		**16**	**2**			
BC (Barrels left in Redstick line)		Placid	BC meter (basis line capacity)	Oil transfer - cargo no.	DD 250		**16**	**2**			
SEAWAY											
Tanker (Freeport)	->	Bryan Mound	Freeport meter	New receipt - cargo no.	DD 250/DD 250-1				**3**	**11**	**18**
				Oil transfer - FPPLBM	DD 250		**11**	**15**			
Quintana Station	->	Bryan Mound	Bryan Mound meter	New receipt - cargo no.	DD 250(HP)		**11**	**19**			
				Oil transfer - QTBMPL	DD 250		**11**	**15**			
Freeport 3mb linefill >24hrs	->	Bryan Mound	Freeport meter	New receipt - cargo no.	DD 250		**11**	**3**			
				Oil transfer - FPBMPL	DD 250		**11**	**15**			
Jones Creek	->	Bryan Mound	Jones Creek tank gauges	Oil transfer - JCPL	DD 250	**11**		**4**			
				Oil transfer - JCBMPL	DD 250		**11**	**15**			
Bryan Mound	->	Jones Creek	Jones Creek tank gauges	Oil transfer - BMJCPL	DD 250	**11**		**15**			
				Oil transfer - BMJCTKS	DD 250		**11**	**4**			
Bryan Mound	->	Bryan Mound	n/a	Oil transfer - BMBM	DD 250		**11**	**15**			

OIL MOVEMENT						DD 250 Block #			DD 250-1 Block #		
FROM	**->**	**TO**	**Primary Cust Meas Pt**	**TYPE**	**FORM**	**21a**	**21b**	**22**	**29**	**30**	**31**
TEXOMA											
Tanker	->	Nederland Term (for dest. **BH**)	Nederland tk gauges; or dk #4 mtr	New receipt - cargo no.	DD 250/DD 250-1	-	-	-	**1**	**9**	**18**
Tanker	->	Nederland Term (for dest. **WH**)	Nederland tk gauges; or dk #4 mtr	New receipt - cargo no.	DD 250/DD 250-1	-	-	-	**1**	**10**	**18**
TX2022PL BH (Port Neches)	->	Big Hill	Big Hill meter	New receipt - cargo no.	DD 250		**9**	**7**			
				Oil Transfer - TX2022PL	DD 250	**9**		**7**			
				Oil transfer - TX2022PLBH	DD 250		**9**	**13**			
TX2022PL LCMS	->	West Hackberry	LCMS meter	New receipt - cargo no.	DD 250		**10**	**8**			
				Oil transfer - TX2022PL	DD 250	**10**		**8**			
				Oil transfer - TX2022PLWH	DD 250		**10**	**14**			
Nederland Terminal (Customer Tanks)	->	Big Hill cco pipeline	Nederland delivery tk gauges	New receipt - cargo no.	DD 250		**9**	**1**			
				Admin DD 250 - TX2022PLBH	DD 250			**20**			
Nederland Terminal (Customer Tanks)	->	DOE tanks @ Nederland Term	DOE recpt tk gauges @ Nederland	New receipt - cargo no.	DD 250		**9**	**1**			
Nederland Terminal	->	Big Hill	Big Hill meter	Oil transfer - NTTKS	DD 250	**9**		**1**			
				Oil transfer - NTTKSBH	DD 250		**9**	**13**			
Nederland Terminal	->	West Hackberry	Nederland tk gauges; if dk #4 rcpt	Oil transfer - TX2022PLWH	DD 250	**10**		**1**			
			then dk #4 mtr plus tk diff	Oil transfer - PLWH	DD 250		**10**	**14**			
Beaumont Terminal	->	Big Hill	Big Hill meter	Oil transfer - BTPL	DD 250	**9**		**5**			
				Oil transfer - BTPLBH	DD 250		**9**	**13**			
Beaumont Terminal	->	Big Hill cco pipeline	Beaumont delivery tk gauges	New receipt - cargo no.	DD 250		**9**	**5**			
				Admin DD 250 - CHPLBH	DD 250			**20**			
Big Hill	->	Nederland Terminal	Big Hill meter	Oil transfer - BHPLNT	DD 250	**9**		**13**			
	->			Oil transfer - PLNT	DD 250		**9**	**1**			
Big Hill	->	Beaumont Terminal	Big Hill meter	Oil transfer - BHPLCH	DD 250	**9**		**13**			
	->			Oil transfer - PLCH	DD 250		**9**	**5**			
West Hackberry	->	Nederland Terminal	Nederland tank gauges	Oil transfer - WHPLNT	DD 250	**10**		**14**			
	->			Oil transfer - PLNT	DD 250		**10**	**1**			
West Hackberry	->	TX2022PL LCMS	TX2022PL meter	Oil transfer - TX2022PLWH	DD 250	**10**		**14**			
				Oil transfer - WHPLTX2022	DD 250		**10**	**8**			
Big Hill	->	TX2022PL BH (Port Neches)	Big Hill meter	Oil transfer - BHPLTX2022	DD 250	**9**		**13**			
				Oil Transfer - PLTCTKS	DD 250		**9**	**7**			
Big Hill	->	Big Hill	n/a	Oil transfer - BHBH	DD 250		**9**	**13**			
West Hackberry	->	West Hackberry	n/a	Oil transfer - WHWH	DD 250		**10**	**14**			

LEGEND

KEY	ENTITY	PRIMARY SIGNATURE *
	Terminals/Pipelines	
1	Nederland Terminal	Operator on duty
2	St. James Terminal	Operator on duty
3	Freeport	Operator on duty
4	Jones Creek	Operator on duty
5	Beaumont Terminal	Operator on duty
6	Teppco (Texas City)	Operator on duty
7	Texas 2022PL Big Hill (Port Neches)	Operator on duty
8	Texas 2022PL LCMS	Operator on duty
	DOE Site Operations Specialist or their DOE Site alternates	
9	Big Hill Site Operations Specialist	[redacted]
10	West Hackberry Operations Specialist	[redacted]
11	Bryan Mound Operations Specialist	[redacted]
12	Bayou Choctaw Operations Specialist	[redacted]
	M&O Site Director. or their M&O designees	
13	Big Hill Site Director/Site Ops Mgr	[redacted]
14	West Hackberry Site Director/Site Ops Mgr	[redacted]/
15	Bryan Mound Site Director/Site Ops Mgr	[redacted]
16	Bayou Choctaw Site Director/Site Ops Mgr	[redacted]/
	Others	
17	M&O contracted 3rd party inspector	Inspector representative
18	Vessel representative	Master/Chief Officer
19	Quintana Station	Operator on Duty
20	M&O Crude Oil Logistics	[redacted]

* The listing reflects the current personnel and/or designees, which is subject to change.

INSTRUCTIONS AND FORM MODIFICATIONS TO ACCOMMODATE DIFFERENT MOVEMENT TYPES

DD 250s should have separate signatures by different people. The signatures may be from the same entity. For example, if a M&O representative signs in block 21a/b, a different FFPO representative must sign in block #22.

The same person should not sign the DD 250 in both blocks.

DD 250 Blk #22 - Line out portions that are not applicable and insert the appropriate terms. Manual hand written

modifications are acceptable. Examples include:

- If other than a Gov't rep is signing, line out "Government Representative" and insert the appropriate terminal,

pipeline, or SPR site.

- If the form documents a shipment, line out "Receiver's Use" and "received", and insert "Shipper's Use" and "delivered".