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MARSHALL PROCEDURAL REQUIREMENTS

ED01

MANAGEMENT OF PROPELLANTS AND PRESSURANTS *With Change 1 (5/27/20)*

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Change/ Revalidation/ Canceled)	Document Revision	Effective Date	Description
Baseline		5/17/00	This document is being rewritten from MMI 4000.4 to an MPG.
Revision	A	10/22/2004	Revised to clarify ambiguity between "Guidelines and Requirements." Requirements distinguished by use of the word "shall." Reflects minor editorial changes.
Revision	B	5/10/2006	Updated document to reflect organizational name and org code changes due to the MSFC transformational realignment.
Revision	C	9/29/2008	Revised 2. Applicability statement to address the applicability of this directive to the Michoud Assembly Facility. Added text in various places throughout the document to clarify the applicability to MAF as a separate delivery order location for the agency-wide consolidated propellants contracts. Reflects minor editorial changes. Updated to reflect the fact that billing and processing payment to supplier is performed through the NSSC. Updated section 4, Records, to clarify the COR records which become part of Official Contract File and to specify record retention requirements for other COR records per NPR 1441. Updated flowchart to clarify the process whereby the COR approves payments which are then certified by CO.
Revision	D	6/30/2010	Changed "MSFC's MAF" to just "MAF" throughout document. Updated org code for MAF Integration and Operations Office. Updated section 1.3 to reflect "CO" as the correct title for the contracting person who officially issues the delivery order. Added section numbers to the flowchart. Updated Appendix A to remove obsolete forms (MSFC Form 55A, MSFC Form 203, MSFC Form 1575, MSFC Form 2525, NASA Form 506A, NASA Form 558, and NASA Form 1057) which are no longer used because information is now input electronically through the SAP system software or provided electronically through spreadsheets developed by COR. Updated Appendix A to add form OF 347 which is used to officially issue written delivery orders to the supplier. Moved reference document list to Appendix B to comply with MWI 1410.1. Added the URL information for KSC documents in the reference document list to facilitate location of these documents. Various other editorial changes/corrections.
Revision	E	7/12/2012	Updated authority document. Re-formatted to comply with new required template per MPR 1410.2J & as instructed in MWI 1410.1F.
Change	1	12/30/2014	On 12/30/14, at the request of the OPRD, an administrative change was made to remove the "Monthly Cost Breakdown Sheet" at P.4 and 2.23.
Revision	F	7/20/1016	Major rewrite, added AS24, changed OPR, removed Flowchart, updated and clarified all sections of the document.
Change	1	5/27/2020	On 5/27/20, at the request of the OPRD, administrative changes were made to delete KDP-P-1765 which the content of has been incorporated into KDP-P-1766; and replace DD Form 1149 with MSFC Form 4554.

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PREFACE

P.1 PURPOSE

To identify responsibilities and establish uniform operating procedures for the management of propellants and pressurants (P&P) used by programs, other Government agencies, and respective contractors, at MSFC, and at MAF, as required by NPD 4100.1.

P.2 APPLICABILITY

- a. This MPR applies to Center personnel, programs, projects, and activities, including contractors and resident agencies to the extent specified in their respective contracts or agreements. (“Contractors” for purposes of this paragraph, include contractors, grantees, Cooperative Agreement recipients, Space Act Agreement partners, or other agreement parties.)
- b. This MPR applies to MAF.
- c. This MPR applies the following: all mandatory actions (i.e., requirements) are denoted by statements containing the term “shall.” The terms: “may” or “can” denote discretionary privilege or permission; “should” denotes a good practice and is recommended, but not required; “will” denotes expected outcome; and “are/is” denotes descriptive material.
- d. This MPR applies the following: all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

NPD 4100.1, Supply Support and Material Management Policy

P.4 APPLICABLE DOCUMENTS AND FORMS

- a. NRRS 1441.1, NASA Records Retention Schedules
- b. MPR 5000.1, Purchasing
- c. MWI 5100.1, Initiating Procurement Requisitions
- d. MWI 5143.1, Contract Change Process
- e. MWI 8715.10, Explosives, Propellant, and Pyrotechnics Program

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f. KDP-P-1766, Propellants, Pressurants, Special Fluids & Other GFM Support for NASA Programs at KSC/CCAFS – Established Source

<https://tdksc.ksc.nasa.gov/servlet/dm.web.StatusRetrieval?did=1286>

g. MSFC Form 4554, Transfer and shipping Document

h. DD Form 250, Material Inspection and Receiving Report

i. Standard Form 1080, Voucher for Transfers between Appropriations and/or Funds

j. Optional Form 347, Order For Supplies or Services

P.5 MEASUREMENT/VERIFICATION

None.

P.6 CANCELLATION

MPR 4500.1F, Management of Propellants and Pressurants, dated July 12, 2012.

Original signed by

Todd A. May
Director

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CHAPTER 1. RESPONSIBILITIES

1.1 KSC, Spaceport Services, Center Services Division, Propellants and Life Support Branch:

NOTE: KSC is responsible for providing NASA with a P&P central procurement organization. Refer to KDP-P-1766 for information describing the overall process for procuring commodities through KSC. They will provide a Technical Representative to manage the Agency-wide contract for each P&P commodity and ensure that an adequate supply of P&P will be available to meet current and future program requirements

1.2 MSFC or MAF Contracting Officer (CO) shall:

1.2.1 Provide a delivery order for each commodity.

1.2.2 Procure P&P commodities. (Refer to MPR 5000.1 and MWI 5143.1)

1.3 MSFC Resource Management Office, ED10, shall:

1.3.1 Perform Contracting Officer's Representative (COR) duties for MSFC procurements of P&P commodities.

1.3.2 Receive and consolidate the 3-year forecasts of P&P requirements from all MSFC users annually. (Refer to section 2.8)

NOTE: These forecasts are based on inputs from each user.

1.3.3 Publish MSFC consolidated 3-year forecast for P&P required by users at MSFC, and update it annually the first of February.

NOTE: The COR will provide copies to NASA Headquarters and KSC as the official MSFC forecast of P&P requirements. Affected organizations may receive an information copy upon request.

1.3.4 Receive and consolidate the monthly estimates of P&P requirements from each MSFC user.

1.3.5 Ensure monthly production orders are generated and based on these estimates, provide to the respective suppliers of P&P in accordance with the contractual agreement. (Refer to section 1.8.9 through 1.8.11.)

1.3.6 Maintain this MPR.

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1.4 Office of Center Operations, Operations and Maintenance Office, AS24, shall:

1.4.1 Ensure all activities performed by the on-site MSFC P&P Operations Contractor are in accordance with contract requirements and this MPR.

1.5 Office of MAF, Integration & Operations Office, SF02, shall:

1.5.1 Perform COR duties for MAF procurements of P&P commodities.

1.5.2 Receive and consolidate the 3-year forecasts of P&P requirements from all MAF users annually. (Refer to section 2.8).

NOTE: These forecasts are based on inputs from each user.

1.5.3 Publish MAF consolidated 3-year forecast for P&P required by users at MAF, and update it annually the first of February.

NOTE: The COR will provide copies to NASA Headquarters and KSC as the official MAF forecast of P&P requirements. Affected organizations may receive an information copy upon request.

1.5.4 Receive and consolidate the monthly estimates of P&P requirements from each MAF user.

1.5.5 Ensure monthly production orders are generated and based on these estimates, provide to the respective suppliers of P&P in accordance with the contractual agreement. (Refer to section 1.8.9 through 1.8.11.)

1.5.6 Provide overall contract oversight for on-site MAF Operations Contractor services.

1.6 MSFC P&P Operations Contractor shall:

1.6.1 Receive specific requests for delivery on a regular basis from individual users and place delivery orders with the suppliers.

NOTE: Users may submit requests at MSFC, Monday – Friday, 7 a.m. – 3:30 p.m. by telephoning 256-544-9456, to the P&P Operations Contractor which will be submitted in the overall request, defining the quantity required at each location and the date to be delivered, for the following week's delivery. The P&P Operations Contractor normally submits orders to vendors on Friday.

1.6.2 Submit requests for P&P delivery.

NOTE: The detailed procedure for placing delivery orders may vary depending upon the contract and specific circumstances and arrangements.

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1.7 MAF P&P Operations Contractor shall:

1.7.1 Receive specific requests for delivery on a regular basis from individual users and place delivery orders with the suppliers.

NOTE: The detailed procedure for placing delivery orders may vary depending upon the contract and specific circumstances and arrangements.

1.7.2 Follow any additional instructions as stipulated in MAF specific Organizational Issuances or contract documents.

1.8 Contracting Officer's Representative shall:

1.8.1 Provide overall management for the nation-wide acquisition of P&P for MSFC or MAF , NASA contractors, and other Government agencies requiring P&P.

1.8.2 Perform long-range planning to ensure the availability of P&P for all applicable current and other NASA programs within the foreseeable future.

1.8.3 Initiate the appropriate procurement/funding actions commensurate with KSC consolidated propellant contracts, local MSFC or MAF procurement delegations, and MSFC or MAF forecasted quantities in order that delivery orders can be issued and processed through established channels.

1.8.4 Interface with NASA Headquarters, other NASA Centers, other Government agencies, and MSFC or MAF users to ensure product availability and to resolve day-to-day problems.

1.8.5 Review the monthly delivery inputs from each using site that reflects the product quantities received, correlate these quantities with the current forecasts, and investigate any significant deviating trends.

1.8.6 Perform adjustments to forecasts, as needed, to update the respective users' changes and coordinate changes with the P&P supplier, NASA Headquarters, and other associated personnel.

1.8.7 Review vouchers on a random basis with inputs from the user sites to ensure commodities and services were performed as required.

1.8.8 Resolve commodity and service issues or discrepancies, as needed.

1.8.9 Review the monthly forecasted inputs from each using site that reflect their estimates of quantities required for the next month, and compare the quantities required with the funding available considering the latest financial status report and an estimate of all outstanding commitments.

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NOTE: The estimate of outstanding commitments is based on the monthly forecast inputs from each using site, conveying quantities received and quantities needed every month.

1.8.10 Notify the respective user and the Accounting Operations Office (AOO) when sufficient funding is not available so the appropriate actions can be taken.

1.8.11 Consolidate the forecasted P&P estimates from each using site to determine total quantities required for the next month, and provide a production order to the P&P supplier for their planning to ensure availability of the products.

1.8.12 File and maintain records in accordance with Appendix D.

1.9 Users (MSFC or MAF, other NASA Centers, and other Government agencies) shall:

1.9.1 Generate a 3-year forecast of P&P requirements annually and provide to the ED10 or SF02 COR no later than January 15 of each year.

1.9.2 Initiate appropriate procurement and funding actions based on forecast.

1.9.3 Provide appropriate funding authority in cooperation with the COR.

1.9.4 Manage local inventories of P&P commensurate with scheduled needs and forecasted requirements to minimize impact to the P&P supplier and using site operations.

1.9.5 Notify the COR of any discrepancies noted during the receipt of the commodities.

1.10 MSFC Accounting Operations Office shall:

1.10.1 Receive funding authority for P&P from each user and process through routine channels.

1.10.2 Obtain resource authorization from NASA Headquarters in reimbursable orders from other Government agencies and process the receipt and acceptance of the order in accordance with applicable regulations.

1.10.3 Issue budget transfer or request for transfer in writing to ED10 or SF02 Business Office to officially provide the authority to withdraw and use funds furnished by each P&P user.

1.10.4 Process Systems, Applications, and Products (SAP) purchase orders as requested through established channels and ensure availability of, and cite, appropriate funds. (Refer to MWI 5100.1.)

1.10.5 Perform accounting functions as appropriate for P&P transactions.

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1.10.6 Issue monthly bills, the Standard Form 1080 may be used, to other Government agencies for P&P delivered on a reimbursable basis.

1.10.7 Process collections from reimbursable customer(s) upon receipt of authority.

1.11 MSFC Office of Procurement shall:

1.11.1 Provide procurement support for P&P requirements as requested.

1.11.2 Issue written delivery orders of P&P requirements officially to the P&P suppliers prior to the first of each month, or as prescribed by the individual contracts.

NOTE: The delivery orders are based on consolidated estimates provided by the COR, and are issued on Optional Form 347, or equivalent, and include all required information as prescribed by the individual consolidated P&P contract.

1.12 NASA Shared Services Center (NSSC) shall:

1.12.1 Ensure P&P supplier's invoices are processed for payment as certified by the CO.

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CHAPTER 2. PROPELLANTS AND PRESSURANTS MANAGEMENT REQUIREMENTS

- 2.1 A 3-year forecast of P&P requirements shall be generated by each potential user.
- 2.2 The individual forecasts for MSFC or MAF users shall be consolidated and published by ED10 or SF02 to provide the basis for long-range planning.
- 2.3 The appropriate procurement and funding action which is based on the above forecast, shall be initiated by user.
- 2.4 A respective purchase request shall be issued to the P&P supplier by the Office of Procurement.

NOTE: The purchase request is normally in the form of a written delivery order.

- 2.5 The suppliers shall be coordinated with the COR to ensure that the necessary P&P can be provided in the quantity and on the schedule required by MSFC or MAF.
- 2.6 Actual orders and deliveries of P&P shall be determined by direct communication between the using site, P&P Operations Contractor, and the respective supplier.
- 2.6.1 The P&P Operations Contractors are authorized to place orders and receive the products.
- 2.6.2 By the 20th of each month, an estimate of the quantities needed for the following month to be used for detailed planning purposes shall be submitted by the P&P Operations Contractor.
- 2.6.3 The logistics report shall be forwarded to KSC P&P Group and the COR by the P&P Operations Contractor for processing.
- 2.7 Vouchers shall be submitted by suppliers to the NSSC for reimbursement for products delivered based on a certification statement by the CO with input from the COR.
- 2.8 The primary point of contact for overall management, long-range planning, and problem resolution, through the utilization of inputs for the activities below shall be the COR.
- 2.8.1 The 3-year forecast of requirements;
- 2.8.2 The financial status report;
- 2.8.3 The record of product quantities received.
- 2.8.4 The monthly estimates of quantities required.

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2.9 The amount of product needed for an agreed-upon period of time shall be estimated by each user.

2.9.1 The information shall be provided to the COR.

2.10 Adequate funding shall be ensured by the COR on the delivery order to cover the charges incurred by all users.

2.11 A delivery order shall be issued by the CO to cover an agreed-upon period of time.

2.11.1 The quantity of product and the funding for such quantity shall be specified on the delivery order.

2.11.2 The delivery order shall be placed only by the authorized individual.

2.11.3 The specific quantity, period for the delivery, and the contract to which it is to be charged shall be documented on the delivery.

2.12 Requests by the user for actual delivery on an as-needed basis shall be submitted to the P&P Operations Contractor.

2.13 The estimates above shall be consolidated from all users and a total estimate of requirements generated by the P&P Operations Contractor.

2.14 The overall estimate (production order) shall be provided to the respective supplier through contractual channels and the COR.

2.15 The product shall be delivered by the supplier to the predetermined location as stated in the delivery order.

2.15.1 Documentation shall be provided by the supplier showing all pertinent information such as: type of product, quantity, and delivery date.

2.15.2 A draft copy of the bill should be provided to the COR for concurrence prior to submitting to NSSC.

2.15.3 MSFC shall be billed by the supplier through NSSC.

2.16 Deliveries shall be received and quantity verified by the P&P Operations Contractor.

2.17 The products shall be distributed to the product users by the P&P Operations Contractor. (Refer to MWI 8715.10.)

2.18 The bills from suppliers shall be processed by NSSC.

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2.18.1 The request for payment shall be forwarded to the CO for approval.

2.19 All factors necessary to approve a payment shall be determined by the CO in concert with the COR's assistance.

2.20 Payment to the respective P&P suppliers shall be processed by NSSC upon approval by the CO.

2.21 Routine accounting, other related activities, and the publishing of a financial status report shall be performed by the MSFC AOO.

2.22 A MSFC Form 4554, Standard Form 1080, Optional Form 347, and/or types of receiving documents (i.e., DD Form 250) shall be used, as required, in the management of P&P resources.

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APPENDIX A. DEFINITIONS

Contracting Officer (CO). A person, appointed in accordance with the FAR/NFS, with the authority to enter into, administer, change, and/or terminate Government contracts and make related determinations and findings within the limits of their certificates of appointment.

Contracting Officer’s Representative (COR). A certified Government employee appointed by the CO to act as their technical representative in managing the technical aspects of a particular contract. These individuals are recommended for appointment based on their training, qualifications, and experience commensurate with the duties and responsibilities to be delegated and the nature of the contract.

Delivery Order. Issued by an authorized CO that covers and officially funds the delivery point’s projected P&P requirements for a specified period, not to exceed 2 year. An order placed by a specific user or using site for product to be delivered on a scheduled date by the appropriate supplier.

Forecast of Requirements. Best estimate of the quantity needed for each product.

Propellants and Pressurants (P&P). All cryogenic and non-cryogenic fluid products such as liquid or gaseous oxygen, hydrogen, helium, nitrogen, and rocket propellant that are used to support combustion for propulsion, pressurize propulsion systems, purge systems, simulate high-vacuum space conditions, simulate low-temperature cryogenic fluid conditions, or create inert atmospheres.

Receiving Document. An appropriate form that officially documents delivery and receipt of materials. DD Form 250 or other appropriate form.

Supplier. A contractor selected by KSC/MSFC for supplying a propellant or pressurant commodity.

User. MSFC or MAF programs, projects, test facilities, and other organizational elements having a need for P&P, including other NASA Centers and other Government agencies.

Using Site. Location where P&P are to be physically delivered (including contractors).

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APPENDIX B. ACRONYMS

AOO	Accounting Operations Office
CCAFS	Cape Canaveral Air Force Station
CO	Contracting Officer
COR	Contracting Officer's Representative
DD	Department of Defense
FAR	Federal Acquisition Regulation
GFM	Government Furnished Material
KDP	Kennedy Documented Procedure
KSC	Kennedy Space Center
MAF	Michoud Assembly Facility
NFS	NASA FAR Supplement
NRRS	NASA Records Retention Schedules
NSSC	NASA Shared Services Center
P&P	Propellants and Pressurants
SAP	Systems, Applications, and Products

APPENDIX C. VERIFICATION MATRIX (Reserved)

None.

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APPENDIX D. RECORDS

D.1 Files for forecasting the usage of P&P are covered in NRRS 1441.1, Schedule 4/13, and are described as “Allocation Files – P&P Records.” The retention period is “Destroy when 5 years old.”

D.2 Records of correspondence between the COR and CO relating to deliverables receipt and approval/disapproval will be provided by the COR to become part of the Official Contract File at contract closeout per MPR 5000.1. The Official Contract File is maintained by PS01 as described in MPR 5000.1.

D.3 Other copies of procurements, contracts, purchase orders, billings, and other records retained by the COR (i.e., those which do not become part of the official contract file records per MPR 5000.1) are covered under NRRS 1441.1, Schedule 5/1F, and are described as “All Other Offices/Copies – P&P Records.” The retention period is “Destroy upon termination, or completion of contract.”

D.4 Records of correspondence concerning monthly forecasted quantities, which are provided by the COR directly to the supplier for production planning purposes (per section 1.8.11), are covered under NRRS 1441.1, Schedule 5/25A, and are described as “Copies of formal written direction to the contractor which fills in detail, directs possible lines of inquiry, or otherwise more specifically defines work set forth in the contract statement-of-work.” The retention period is “Destroy upon certification of payment to the contractor or when no longer needed for follow-on contract preparation.”