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Ontario Power Generation Program

TITLE
ITEMS AND SERVICES MANAGEMENT

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PURPOSE

This program supports Supply Chain activities across all of Ontario Power Generation (OPG).

- (a) Processes identified in this program ensure:
 - Procurement is planned, and that purchased, stored, and issued *items* and purchased services meet appropriate and applicable design and quality requirements.
 - Requirements for a managed process are in place to ensure that the procurement of *nuclear* fuel is planned, and that purchased fuel materials and services meet appropriate design and quality requirements.
 - *Items*, services, and *nuclear* fuel materials and bundles are purchased in accordance with stated requirements and controlled through proper identification, handling, storage, issuance, and shipping to ensure the quality of equipment and components is preserved.
- (b) Execution of requisitioning and procurement processes shall be fair and transparent and shall be conducted in accordance with OPG-STD-0017, Organizational Authority Register (OAR), and OPG's Business Code of Conduct.
- (c) This program supports Quality Assurance (QA) requirements stated in Canadian Standards Association (CSA) N285 and N286 series of standards.
- (d) This program is applicable to the purchase, storage and handling of *items* or services used to support construction, operation, maintenance and decommissioning activities within OPG *nuclear* power facilities, waste management and *nuclear* fuel materials and services for use in OPG reactors and support programs, and aligns with requirements of N-MAN-01913.11-10000, Pressure Boundary Program Manual.
- (e) This program does not apply to the following:
 - (1) The handling, storage, or control of *nuclear* fuel at Ontario Power Generation Nuclear (OPGN) power facilities.
 - (2) The procurement of *items* or services specific to other approved program and supporting documents.

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1.0 DIRECTION

1.1 Process Management [B-9] [B-50]

Process activities are executed as described in approved governing documents in an established governance framework. Figure 1: Governing Document Hierarchy for Supply Chain, shows the Supply Chain governance framework and interfacing program documents within the overall OPG Governance Framework.

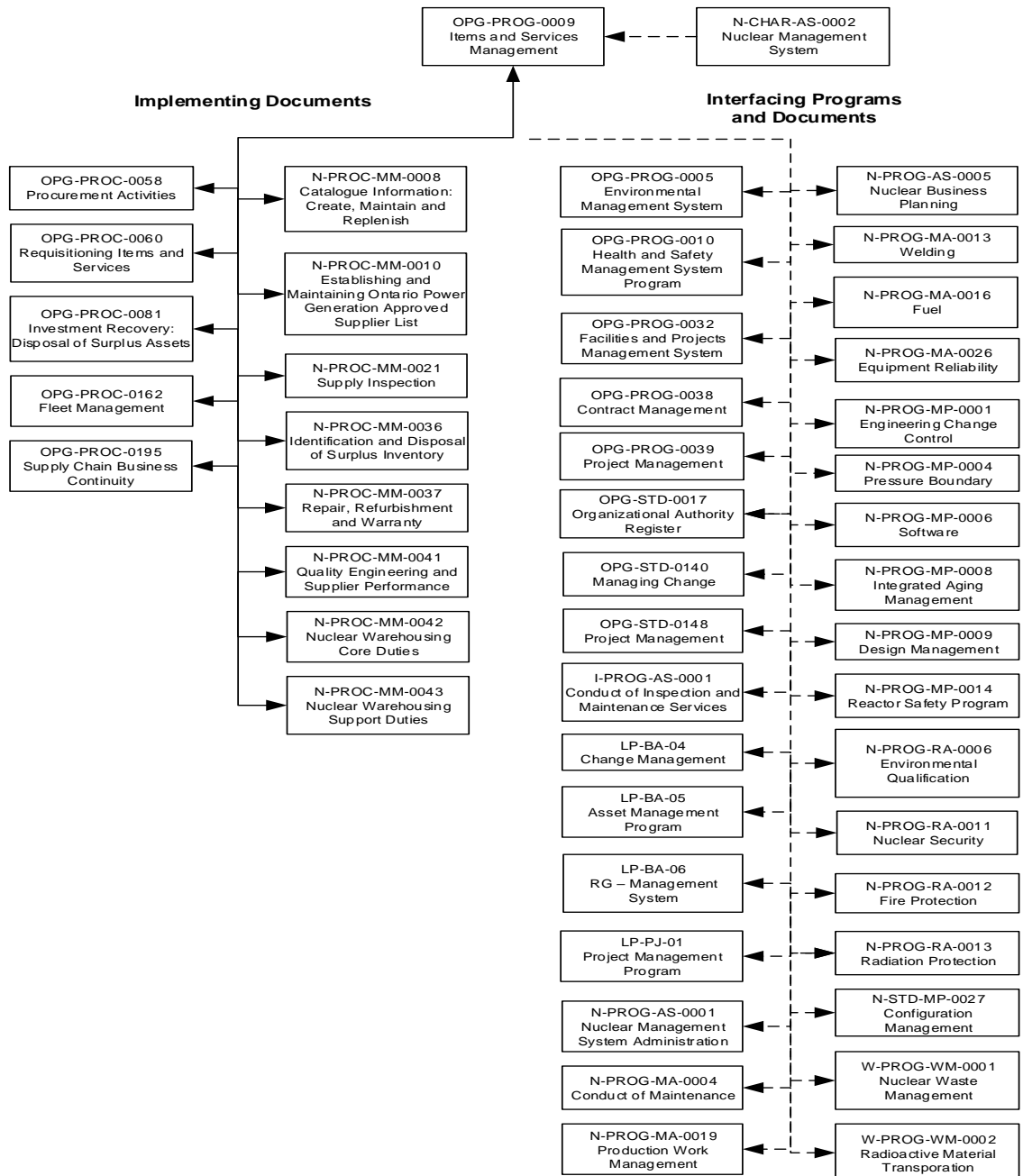


Figure 1. Governing Document Hierarchy for Supply Chain

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1.1.1 Strategic Planning [B-41] [B-42]

- (a) For *nuclear*, annual business plans are created in accordance with N-PROG-AS-0005, Nuclear Business Planning. Participation in strategic or business planning activities is managed through Vice President (VP), Supply Chain – Materials, and VP, Supply Chain – Services, and their Direct Reports.
- (b) For Renewable Generation (RG), the overall Business Planning process is managed by Strategy and Business Support. Participation in strategic or business planning activities is managed through VP Supply Chain - Services, and their Direct Reports.
- (c) For OPG projects, participation in strategic or business planning activities is managed through VP Supply Chain – Services, and their Direct Reports.
- (d) For Center-led functional groups, Supply Chain Corporate Services is managed through the VP, Supply Chain - Services, and their Direct Reports, who participate in strategic or business planning activities that support the goals and objectives of the particular function.

1.1.2 Policy and Process Development

This program and implementing governing documents are managed in accordance with processes established in OPG-PROC-0001, Process Administrative Governance Documents. Additional requirements for *nuclear* governing documents are identified in N-PROG-AS-0001, Nuclear Management System Administration.

1.1.3 Control of Interfaces [B-1]

Program interfaces are managed at major points in the Supply Chain program. *Items*, services, and *nuclear* fuel requirements are specified by interfacing programs, which ensure required *items* and/or services are accurately described, and technical, regulatory and QA requirements are specified. This interface is managed within a cataloguing process and through a series of entries, checks and reviews, to ensure user and design-based requirements are accurately retained in a secure database.

1.1.4 Organization [B-1]

Requirements of this program are executed primarily by members of the OPG Supply Chain organization, or by augmented staff and contracted services retained by Supply Chain Line Managers.

- (a) Procurement activities, strategic sourcing, supplier surveillance, receiving inspection, supplier QA, investment recovery, *nuclear* warehousing, and governance maintenance activities are provided through the Supply Chain organization led by the Chief Supply Officer.
- (b) For the *nuclear* Line of Business (LOB), functional services for Catalog creation and maintenance, inventory management (on behalf of the owning site), receiving, storage, *item* issues and returns are provided by Supply Chain and Engineering organizations.

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1.1.5 Records Management [B-3]

Records generated or maintained by Supply Chain processes are managed in accordance with OPG-PROG-0001, Information Management.

1.1.6 Corrective Action [B-6]

For *nuclear*, adverse conditions are managed in accordance with N-PROG-RA-0003, Performance Improvement. Corrective action plans are input and managed through to completion using the Station Condition Record (SCR) application and the Action Tracking module in Asset Suite.

For *non-nuclear* (Corporate and RG), adverse conditions are managed through root-cause analysis and the implementation of appropriate corrective actions.

1.1.7 Program Assessment and Evaluation

(a) For *nuclear*:

- (1) This program shall be reviewed and reported in accordance with N-PROC-RA-0023, Fleetview Program Health and Performance Reporting..
- (2) Program audit is performed in accordance with N-PROG-RA-0010, Independent Assessment.
- (3) Self-assessments are planned and executed according to an inter-divisional plan, in accordance with N-PROC-RA-0097, Self-Assessment and Benchmarking.

(b) In addition to formal program assessments address in (a)(1) above, and performance indicators and review identified in section 1.1.8, Managers also conduct ongoing monitoring and management of the effectiveness of the Program elements used in their organizational units as part of day to day management activities.

- (1) This monitoring and management include a comparison of results against established goals.
- (2) Line organization Managers may identify and implement improvement initiatives within their span of control, or they may submit proposals for initiatives to the Continuous Improvement and Functional Excellence department via the Senior Manager, Business Systems Integration.

1.1.8 Performance Indicators and Review

- (a) Senior Manager, Business Systems Integration, shall ensure that appropriate Supply Chain “plant-focused” performance indicators are established and produced in support of operations.
- (b) In addition, for *nuclear*, performance indicators are established and produced in accordance with N-PROC-AS-0078, Nuclear Performance Monitoring and Reporting.

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1.1.9 Data Integrity

- (a) Applications critical for configuration management and station historical records are secured by controlled access to the data and application programming.
- (b) Changes to enterprise system code table content are managed in accordance with N-INS-08180-10002, PASSPORT Security Administration.
- (c) Effective procurement and logistics process execution and control depends on high levels of data integrity for each transaction. Award or maintenance of securities for updating data is managed in accordance with N-INS-08180-10002.

1.1.10 Work Management [B-4]

Management of Supply Chain transactional work necessary to support OPG is carried out by supported Information Technology applications. Processes are automated to the extent necessary to achieve consistent deliverables and adequate data control.

For *nuclear*, refer to N-PROG-MA-0019, Production Work Management.

1.1.11 Work Requiring Verification - Nuclear [B-4] [B-35] [B-69]

- (a) In accordance with OPG-PROC-0058, Procurement Activities, for *nuclear*, *contracts* for the following *items* and/or *services* are subject to independent verification of process adherence and content accuracy.
 - Pressure Boundary (PB) *items*,
 - PB *services*
 - All *contracts* revisions where technical requirements and/or specifications have been altered.
 - Blanket Purchase Order (BPO) revisions prepared to add new line *items*, or where technical and/or quality requirements for existing line *items* are changed.
- (b) Supplier product and process verification is carried out and documented under procedure N-PROC-MM-0021, Supply Inspection.

1.1.12 Operating Experience Integration [B-7]

Supply Chain organization has established communication with Operating Experience (OPEX) groups to capture external experience relative to suppliers and their products. For *nuclear*, this is performed in accordance with N-PROC-RA-0035, Operating Experience Process.

1.1.13 Housekeeping

- (a) Compliance to the Health and Safety Management System and other regulatory health and safety requirements are monitored on an ongoing basis in accordance with OPG-PROG-0010, Health and Safety Management System Program.

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- (b) *Nuclear* Warehouse and office facilities are subject to housekeeping requirements in accordance with N-STD-MA-0008, Station Material Condition and Housekeeping. Combustibles are managed to minimize warehouse and in-plant fire loading in accordance with N-PROC-RA-0012, Fire Protection.

1.1.14 Emergency Response

In emergency situations, it may be necessary to deviate from standard Supply Chain procedures. In such cases, OPG-PROC-0195, Supply Chain Business Continuity, and related guidance over-ride standard processes and shall be followed. Supply Chain Senior Management approval shall be obtained prior to invoking emergency guidelines.

1.2 Core Processes [B-30] [B-46] [B-8]

1.2.1 Non-Nuclear Item Identification

LOB governing documents provide the appropriate controls and data capture requirements to ensure that *items* are appropriately described and uniquely identified through a stock-code.

1.2.2 Nuclear Item Identification – Catalog Information Content Management

N-PROC-MM-0008, Catalogue Information: Create, Maintain and Replenish.

- (a) Procedures address *item* classification using Catalogue Identification (CAT ID) or stock-code. *Items* shall be classified as either alternate parts or spare parts which governs *item* storage and life cycle management.
- (b) *Items* requiring traceability to design records, documentation and *acceptance* records, maintenance history, installation, special marking requirements, code requirements, inspection, examination and testing are identified with a CAT ID number prior to purchase.
 - (1) A CAT ID number is generated through the Asset Suite information system based on a request from a Requestor.
 - (2) CAT ID numbers are associated with Bills of Material when *item* data is essential for configuration control, as described in N-STD-MP-0027, Configuration Management.
- (c) Catalog Content may consist of the following information as appropriate.
 - *Item* description.
 - Technical and performance requirements.
 - Jurisdictional and regulatory requirements.
 - Applicable Codes, standards, and specifications referenced in approved design documents.
 - Supplier QA program requirements, documents and records.
 - Inspection and testing requirements including *acceptance* criteria.
 - Identification and traceability requirements.

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- Packaging, shipping, storage and handling requirements.
 - Documentation requirements and the timing of submission.
 - Right of access to work facilities and records.
 - Retention, maintenance and distribution of records.
 - Provision to extend applicable requirements to subcontractors.
- (d) Changes to safety-related *item* description data require evaluation and approval by staff qualified to perform procurement evaluations.

(1) *Item* Identification Review or Verification

New CAT IDs are initiated in draft form as described in Supply Chain procedures. CAT ID data is completed to ensure descriptive data and technical requirements are accurately reflected in Asset Suite using statuses, standardized specifications, and indicators.

Items identified as being safety-related, Pressure Boundary (PB) or *Nuclear Class* are processed in accordance with N-PROC-MP-0098, Procurement Engineering Activities.

Items requiring confirmation of Technical Standards and Safety Authority (TSSA) design registration are identified during the Engineering evaluation process. Supplier requirements are specified with the *item*.

(2) *Item* Identification Change Control

Modifications or changes to CAT ID data are performed in a controlled manner by responsible personnel following the same rules as specified in *Item* Identification Review or Verification (Section 1.2.1 [d]). Any changes to technical attributes of a defined *item* require creation of a new CAT ID, unless the *item* has not yet been procured, is not in inventory or is not installed. Changes to description data for *items* not listed in N-LIST-08135.4-10000, Procurement Engineering Exclusion List, require Engineering evaluation and approval.

Approved changes to CAT ID data affecting existing stock are communicated to warehouse personnel to ensure alignment of electronic information with physical characteristics of the *item*. This may include changing a CAT ID for stock consolidation purposes, changing QL, or adding a Uniquely Tracked Commodity (UTC) number to *items* requiring traceability.

1.2.3 Inventory Control [B-39] [B-47] [B-72]

- (a) Inventory for *non-nuclear* LOB is both owned and managed by the LOB. *Non-nuclear* LOBs may create supporting governance to meet inventory control requirements.
- (b) Inventory for the *nuclear* LOB is owned by the stations. Supply Chain is responsible for the management of inventory in the *nuclear* LOB.
- (1) Monitor Shelf Life Requirements

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For *nuclear items*, shelf-life activities are performed in accordance with N-PROC-MM-0043, Nuclear Warehousing Support Duties.

Items are flagged for shelf life control at CAT ID level. When an *item* is received, the shelf life expiry date is recorded and monitored for compliance against an applied UTC number.

(2) Planned *Nuclear* Warehouse Inspection

A monthly inspection of warehousing locations storing *nuclear items* is performed in accordance with N-PROC-MM-0043. The inspection includes an assessment of general workplace conditions and a detailed inspection of a sample of random *items*.

(3) Inventory Certification or Inventory Accuracy

Annual certification of inventory is carried out in accordance with requirements of FIN-PROC-0031, Fuel Inventory and Materials and Supplies Inventory Accounting.

(4) Usage Analysis

Historical usage patterns are analyzed to ensure stocking levels are appropriate to meet outage and day to day requirements.

(5) Inventory Planning

Inventory Planning uses the Asset Suite 7 (AS7) *Material Resource Plan (MRP)*. Stocking parameter's (i.e., *Stock Model, Safety Stock, Re-order Point [ROP]* and *Target Maximum [TMAX]*) are set, maintained and monitored in accordance with N-PROC-MM-0008.

(6) Supply Demand Balancing

New purchases (supply) are adequately supported by an associated demand signal. Controls are in place and monitored to identify instances where material purchases need to be initiated, or existing inbound supply is no longer required. Supply Demand balancing activities should be performed in accordance with N-PROC-MM-0008.

1.3 Procurement of Items and Services [B-28] [B-5] [B-8] [B-66]

1.3.1 Requisitioning [B-10] [B-14] [B-30] [B-41] [B-43] [B-45] [B-11] [B-12] [B-13] [B-51] [B-52] [B-53] [B-54] [B-55]

(a) Requests for *Items*

OPG-PROC-0060, Requisitioning Items and Services

- (1) Supply Chain is consulted at the initial stages of new *item* and project-based procurement to provide input on sourcing strategy and procureability.

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(2) The need for *items* is identified through use of a requisition (or a Material Request [MR] in the *nuclear* LOB). If required *item* has a CAT ID, and is available in stock, a material issue is created. MRs are initiated as required by end-users or through approval of planned work.

(b) Request for Services

OPG-PROC-0060, Requisitioning Items and Services

Note: Purchased services are generally not catalogued.

(1) Demand for services is documented by Requestors. Requestor specifies the following as appropriate:

- Scope of work,
- Technical performance requirements,
- Regulatory requirements,
- Codes, standards, and specifications referenced in approved design documents,
- Supplier QA requirements related to the requested service,
- Special qualifications of supplier personnel,
- Special process procedures requiring approval,
- Start and end-date.

(2) Once a request has been prepared and approved by the requisitioning line management in accordance with the OAR, services request may be input into AS7 using a signature based MR or *contract* requisition. Requestor provides copies of supplemental documentation (necessary to support procurement and supplier-based activities) to Supply Chain.

(3) For *nuclear* LOB, only suppliers qualified on the Approved Supplier List (ASL) are awarded *contracts* in accordance with the specified *nuclear* QA requirements (subject to any restrictions).

(c) Electronic Re-Order Notice (ERN) - *Nuclear*

N-PROC-MM-0008, Catalogue Information: Create, Maintain and Replenish

(1) Requisition progression may occur by two methods related to involvement by Supply Chain.

(2) When an *item* ROP is triggered, due to inventory issue transactions or new demand from approved Work Orders exceeds current available inventory levels an ERN is generated. If the "Auto Requisition" indicator is set, the ERN automatically initiates a Purchase Requisition (PR) within the *Procurement Agents'* PR backlog and by-passes qualified staff review. This occurs only on CAT IDs which have been previously purchased.

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- (3) When an *item ROP* is triggered, due to inventory issue transactions or new demand from approved Work Orders exceeds current available inventory levels an ERN is generated. If the “Auto Requisition” indicator has **not** been set the ERN will be reviewed by qualified staff for correct CAT ID information. Once CAT ID information is confirmed and updated as required qualified staff initiate a PR within the *Procurement Agents’* PR backlog.
- (4) An *item* must have the “Auto Requisition” indicator removed when technical or impact commercial changes have been identified, and a new Engineering review must be initiated.

(d) Auto-Requisition – *Non-Nuclear*

When a catalogued *item ROP* is triggered, due to MR transactions or new demand from approved Work Orders, a PR is automatically generated if the “Auto Requisition” indicator has been set for that *item*. If a Blanket Purchase Order (PO) for the *item* has been established a release is automatically created against the Blanket PO to purchase the *item*. A delay period between requisition creation and release generation may be specified on the Blanket PO.

(e) *Nuclear Fuel*

N-INS-08173-10051, Nuclear Fuels – Procurement Planning

Requirements for planning the procurement of *nuclear* fuels including requisitioning activities, scheduling, and forecasting inventory requirements, are identified in N-INS-08173-10051.

1.3.2 Supplier Processes [B-23] [B-31] [B-43] [B-68]

(a) Supplier Management

- (1) Suppliers are listed in the appropriate supplier database (Vendor List [VL] and/or ASL) and qualified for the particular scope of work (subject to any restrictions).
- (2) OPG-INS-08173-0007, Supplier Management, specifies the requirements for managing list of active and inactive suppliers to OPG including qualifying suppliers and managing vendor databases.
- (3) OPG-PROC-0058, Procurement Activities, specifies requirements when sourcing, evaluating and selecting suppliers. OPG-INS-08173-0001, Supplier Performance Monitoring and Management, specifies requirements for monitoring, evaluating, and management of supplier performance..
- (4) Prior to requesting quotations or proposals, the *Procurement Agent* ensures proponents have required technical (design, engineering capability, product support, field support, emergency support, installation capability, commissioning, ability to provide required documentation) and QA capabilities.

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- (5) Mitigating actions, including revised verification activities, are initiated by Supply Chain when required, to assure adequate performance of contracted work, and to reduce life-cycle costs to OPG.
- (6) Adverse supplier performance, including issues around post-installation support, and other performance-related issues are recorded for consideration in selecting suppliers and to allow Supply Chain to plan mitigating actions where no other qualified supplier exists.

For *nuclear*, actions taken by the *Procurement Agent* to manage adverse performance are also recorded. Deficiencies in product quality identified as Over, Short, Damaged & Discrepant (OSD&D) in the receiving process are considered when initiating a supplier quality program audit in accordance with N-PROC-MM-0010, Establishing and Maintaining Ontario Power Generation Approved Suppliers List.

- (7) Suppliers are expected to follow OPG-STD-0141, Supplier Code of Conduct. Any actions violating the Code of Conduct and past performance information are retained by vendor desk and will be considered in supplier selection.

- (b) Approved Supplier List - *Nuclear* [B-5] [B-23] [B-24] [B-25] [B-26] [B-62] [B-63] [B-61] [B-64] [B-27] [B-65]

N-PROC-MM-0010, Establishing and Maintaining Ontario Power Generation Approved Suppliers List

The ASL is a subset of the VL. The ASL contains those suppliers qualified and approved by Supply Chain Quality Services (SCQS) to supply *items* and services requiring a QA Program to the *nuclear* organization.

The controls for establishing and maintaining the OPG ASL is documented in N-PROC-MM-0010. This procedure describes the methods used to originate, request, evaluate, qualify, and maintain the qualification of suppliers of *items* and services. Requirements of this procedure apply to both Safety Related and Augmented Quality *items* and services suppliers.

Only SCQS personnel specified by the Senior Manager, SCQS have the required Asset Suite security clearances to add suppliers to the ASL or to change their approval status. The ASL can be reviewed by Asset Suite users.

The ASL includes, but is not limited to:

- Supplier's name,
- Location where work is performed,
- Scope of supply or activity,
- Certification and accreditation details,
- Date of approval and expiry,
- QA Program approved,
- Approval method,
- Approval and procurement restrictions and conditions, if applicable.

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ASL indicates supplier status (i.e., “satisfactory”, “satisfactory with restrictions”, or “unsatisfactory”).

Where supplier status is “unsatisfactory” or, where no suppliers exist who can meet technical or QA requirements, *Procurement Agents* attempt to resolve discrepancies between specified requirements and supplier capabilities. If designated and alternate suppliers cannot meet requirements, the *Procurement Agent* generates a Procurement Inquiry in accordance with OPG-PROC-0058, in Asset Suite system to communicate the issue to Engineering for resolution.

- (1) Adding new suppliers to the ASL is controlled by N-PROC-MM-0010 and N-FORM-10170, Approved Suppliers List Action Request, which is utilized to document the qualification requirements and required approvals.

N-FORM-10170 is also used to request the modification of an existing qualified supplier on the ASL.

- (2) Method of Approval

SCQS may add a supplier to the ASL in accordance with N-PROC-MM-0010 using one of the following methods:

- Audit (OPGN, CANDU Procurement Audit Committee [CANPAC] or Nuclear Procurement Issues Committee [NUPIC]).
- Review and *acceptance* of 3rd Party QA Program certificate (International Organization for Standardization [ISO] 9001, ISO 17025).
- Certificate of Authorization from the Code jurisdiction as appropriate to the scope of supply.
- Quality System Certificate (QSC).

SCQS may accept registration of a supplier’s QA program by a third party as adequate proof of implementation of a quality program, subject to OPG’s confidence in the registrar and supplier. Third party audits cannot be used to qualify PB suppliers. SCQS identifies any limits of application associated with third-party *acceptance*.

- (3) Maintaining ASL

Re-qualification by SCQS shall be required to maintain approval status of suppliers on the ASL in accordance with N-PROC-MM-0010. Re-qualification shall be performed in accordance with requirements of original qualification.

Re-qualification of suppliers is carried out once every 3 years and conducted in accordance to requirements of N-PROC-MM-0010.

If re-qualification activities determine a condition is such that the supplier cannot be re-qualified based upon a quality issue, a SCR shall be initiated to investigate extent of condition on *items* currently in Supply Chain, in-stock or installed, as applicable. Removal due to lack of purchasing activity does not need a SCR.

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(4) Removing Supplier from the ASL

Supplier shall be removed from ASL in accordance with N-PROC-MM-0010 due to poor quality performance, continued failure to address corrective actions, or deficiencies identified during re-qualification that cannot be corrected.

(5) Audits

OPGN audits are planned, scheduled, and executed at supplier facilities to ensure QA program is effectively implemented and in compliance with all aspects of the technical and quality requirements documented in the PO in accordance with requirements of N-PROC-MM-0010 and N-INS-08173-10005, Supplier Audits.

Nuclear Fuel supplier assessments are scheduled on an annual basis and are carried out by OPG Supply Inspection Technologists.

Audit results are evaluated and corrective actions for improvement are raised and tracked to satisfactory resolution. A final determination of supplier program *acceptance* is made and recorded in Asset Suite.

(6) Supplemental Audits

Scheduled audits shall be supplemented with additional audits in accordance with N-PROC-MM-0010 when the effectiveness of a quality program is in doubt unless the supplier is removed from the ASL. The effectiveness of a quality program is in doubt when:

- (i) There is continued failure to address corrective actions requests.
- (ii) There is a significant station initiated SCR (e.g. either a significant single event or a significant trend SCR). The significance and the need to perform a supplemental audit shall be reviewed and determined in conjunction with the Senior Manager, SCQS or delegate.

(c) Quality Engineering and Performance Management - *Nuclear* [B-5]

SCQS Quality Engineering and Performance Management team is responsible for measuring and monitoring supplier's quality performance, investigation and management of supplier corrective actions related to SCRs and OPEX, reduction of initial receipt inspection *item* quarantine, and development of suppliers. This includes maintaining ASL Criticality List, Quality Key Performance Indicators (KPIs), and ASL Critical Supplier Quality Health Index, and supplier quality escalation process. These activities are managed in accordance with N-PROC-MM-0041, Quality Engineering and Supplier Performance Management.

(d) Quality Assurance

Items and services required for establishing technical and quality requirements are processed in accordance with applicable procurement quality standards and requirements.

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1.3.3 Purchasing Methods [B-10] [B-11] [B-12] [B-13] [B-14] [B-15] [B-16] [B-17] [B-18] [B-19] [B-20] [B-21] [B-22] [B-23] [B-26] [B-28] [B-29] [B-30] [B-31] [B-32] [B-33] [B-44] [B-45] [B-51] [B-52] [B-53] [B-54] [B-55] [B-56] [B-57] [B-58] [B-59] [B-60] [B-61] [B-66] [B-67] [B-68] [B-35] [B-69]

OPG-PROC-0058, Procurement Activities

Procurement Agent reviews requisitions to determine if *item* or service description can be converted into an enforceable *contract*.

OPG will use an appropriate procurement methodology depending on the nature of the *items* and/or services, the *procurement value*, timelines and any other business requirements. The following are acceptable procurement methods:

- Second stage selection process under a VOR Arrangement.
- Invitational Competitive Process.
- Open Competitive Process.
- Non-Competitive Procurement.

The Procurement Agent, ensures suppliers have the capability to meet technical and QA specifications for required *items* or services. For *nuclear*, *Procurement Agents* ensure this by reviewing the ASL audit notes, when appropriate, using the ASL electronic catalogue (AS7) or the ASL notes in AS7 for specific qualification data.

Clarifications and additional information are obtained as required in accordance with OPG-PROC-0058.

OPG-PROC-0058 identifies the process used to create a procurement package (Request for Proposal [RFP] or Request for Quotation [RFQ]) and evaluate and record quotations/proposals.

(a) Vendor of Record (VOR)

A VOR Arrangement involves the establishment of a VOR list, which is a list of suppliers that OPG has determined satisfy the conditions for participation on that list and that OPG may intend to use more than once.

VOR Arrangements will typically be used for repetitive purchases of similar *items* and/or services.

VOR lists for the acquisition of specific *items* and/or services will be established through an open competitive process.

The acquisition of *items* and/or services from suppliers on the VOR list requires the use of a second stage selection process to ensure that OPG obtains the best value for money.

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(b) Master Agreements and Blanket POs

Where Master Agreements or Blanket POs have been established by Supply Chain, a *contract* is set up in Asset Suite in accordance with OPG-PROC-0058. Where Master Agreements and/or Blanket POs exist, *items* and services are acquired from the supplier in the form of a PO release or by a second stage process in accordance with OPG-PROC-0058.

(c) Obtaining Quotations or Proposals

- (1) Asset Suite identifies CAT ID attributes critical to adequate description of *item* requirements to the *Procurement Agent* (see *Item Identification* section). *Procurement Agent* is not permitted to alter *item* description data for safety-related (QL-1 or QL-2) or augmented quality (QL-3) *items*.
- (2) *Procurement Agent* creates a procurement package in accordance with OPG-PROC-0058.
- (3) The procurement package shall define, as a minimum, the following information as appropriate:
 - Scope of work including need to identify spare/replacement parts,
 - Technical performance requirements,
 - QA program requirements and that the supplier incorporates appropriate QA program requirements in sub-tier procurement documents,
 - Applicable codes, standards, and specifications,
 - Jurisdictional requirements,
 - Management system standard and applicable requirements,
 - Inspection, test, and *acceptance* requirements, including any special instructions,
 - Delivery requirements including transportation terms,
 - Documentation requirements and the timing of submissions,
 - Requirements for reporting and approving the disposition of problems,
 - The need for right of access to suppliers and sub-tier supplier facilities and records for surveillance, inspection or audit,
 - Provisions for extending applicable requirements to subcontractors,
 - Provisions for controlled distribution, retention, maintenance, and disposition of records,
 - Evaluation criteria, methodology and weightings.
- (4) Appropriate Terms and Conditions which establish the commercial requirements for provision of schedules (including document submission dates), documents, rights of inspector access, reporting and approval of nonconformances, etc. will be included with the procurement package.
- (5) When using invitational competitive procurement, supplier performance is considered when developing proponent lists. *Procurement Agents* pursue competitive engagements but may single source to qualified suppliers where the requirements of OPG-PROC-0058 are met.

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- (d) Quotation/Proposal Evaluation and Award
- (1) *Procurement Agent* evaluates supplier’s capability based on requirements identified in the procurement package. Requestor participation is obtained as required. Quotation/proposal responses, evaluation summaries and basis for selection and award are recorded and retained in accordance with OPG-PROC-0058 for potential future demand, comparison, and audit.
 - (2) Special care is taken to ensure matching of vendor quotation/proposal responses to requested *item* or service characteristics for PB *items*, (Code Effective date, design registration). Any proposed design change for *items* is subject to Engineering approval. For *nuclear*, design changes on QL-1, QL-2, or QL-3 *items* outside scope of Engineering’s work require Design Engineer approval.
 - (3) The quotation or proposal evaluation shall confirm that *items* or services offered meet technical requirements, which may include safety, reliability, maintainability, and QA. For *nuclear items*, where exceptions are taken to technical or QA requirements, a Procurement Inquiry is processed in accordance with OPG-PROC-0058. Exceptions are directed back to technical resource, typically Engineering or requestor (determined based on who initiated the initial request).
 - (4) Where quotation or proposal clarification is required, the *Procurement Agent* interfaces with suppliers to obtain information. Clarification to the quotation or proposal and changes are documented prior to proceeding with an award. Any revisions to the quotation or proposal affecting technical or QA requirements are approved by Engineering.
 - (5) A review of the proposed *contract* is conducted by the *Procurement Agent*. Where required by OPG-PROC-0058, internal stakeholders are consulted as needed to manage contractual risks (i.e., resolve commercial exceptions, obtain financial protection, obtain insurance, etc.).
 - (6) Purchasing approval is obtained in accordance with the OAR.
 - (7) Procurement Agent is required to monitor and update the Estimated Delivery Date for a PO line *item*, based on a need date priority or an expediting request from a requisitioner .
 - (8) The *Procurement Agent* ensures *item* or service requestor has established work performance verification requirements prior to award of business, and these requirements are passed along to the service provider as negotiated terms and conditions of the *contract*.
 - (9) For *nuclear* procurement, a peer review of *contracts* for PB purchases is conducted prior to issue to ensure that content of the procurement documents meets requirements identified in OPG-PROC-0058. Remedial and corrective actions are initiated according to N-PROC-RA-0003.
 - (10) A *contract* documenting agreed-to *contractual* requirements is issued to the supplier. The content of the *contract* is in accordance with OPG-PROC-0058.

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(e) *Contract Maintenance*

Maintenance of an approved *contract*, Blanket PO or PO Release is conducted in accordance with OPG-PROC-0058. Revisions are processed through the same organizations that approved the original *contract*.

(f) *Nuclear Fuel Design Authority (DA), or delegate, conducts reviews of contract documentation for uranium conversion and fuel manufacturing services to assure that technical content of procurement documents remains consistent with item design bases.***1.4 Contract Administration [B-31] [B-68] [B-35] [B-69]**

OPG-PROC-0058, Procurement Activities

N-INS-08173-10051, Nuclear Fuels – Procurement Planning

- (a) Overall completion of required *contract* deliverables is managed by the requisitioner, and the *contract* by Supply Chain. For *nuclear* fuels, overall completion of required *contract* deliverables as specified by Engineering and the *contract* documentation is managed by Nuclear Fuel Supply Services.
- (b) The *Contract* Owner manages execution of site-based activities. Requestors provide *item* and service acceptability feedback to Supply Chain, who retains a record of supplier performance.
- (c) *Contract* changes are communicated to the supplier using *contract* revisions. *Contract* changes are processed through the same organizations as approved the original *contract* in accordance with OPG-PROC-0058.
- (d) For *nuclear*, *Procurement Agent* establishes an approvals process for manufacturer's process control, and special process procedures and for documentation associated with *items* used in PB or Safety related service (as defined by CSA N285/N286). Refer to N-PROC-MP-0078, Specification, Review, Acceptance and Use of Vendor Technical Documents. Upon receipt of supplier's drawings, the *Procurement Agent* forwards submissions to Engineering or requestor. When required, supplier Inspection and Test Plans (ITPs) are reviewed and approved by the appropriate technical resource.
- (e) A process is established for the review and *acceptance* of manufacturer's process control, special process procedures and for documentation associated with *nuclear* fuel refining and/or conversion and manufacturing services. Supplier procedures and data are maintained by Nuclear Fuel Supply Services.
- (f) For *nuclear*, technical supplier submitted Concession Applications are routed to Engineering for review and disposition. For *nuclear* fuel, Supplier Concession Applications are routed to Nuclear Fuel Supply Services, who initiate a request for review to Nuclear Safety and Technology Department for DA disposition.
- (g) Measures are established for the termination or close-out of *contracts* following the receipt and *acceptance* of *items* or for cause. Final payment closes the *contract*, not withstanding any Warranty provisions.

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- (h) For purchased *items* and/or services, supplier performance is monitored for compliance to *contract* requirements. Supply Chain has the authority to close *contracts* 'for cause', where suppliers fail to meet *contractual* requirements.

1.5 Nuclear Warehousing [B-39] [B-72]

Supply Chain is responsible for warehousing activities only in the *nuclear* LOB as described below.

1.5.1 Personal Protective Equipment

Warehouse personnel and Receiving Inspectors shall use Personal Protective Equipment as required by OPG-PROC-0131, Personal Protective Equipment, and follow the requirements of OPG-PROC-0136, Falling Object Prevention, and OPG-PROC-0137, Fall Protection, as appropriate.

1.5.2 Receiving [B-31] [B-36] [B-37] [B-39] [B-49] [B-70] [B-72] [B-8] [B-35] [B-69]

N-PROC-MM-0042, Nuclear Warehousing Core Duties

- (a) *Items* are checked or inspected at time of arrival at facility warehouses for compliance to requirements as specified in the *contract* and as specified by Engineering. As a minimum, *items* are matched to the *contract* number (commercially available *items*), are correctly identified, have packaging, special coatings and preservation requirements verified, and are checked for shipping damage. Partial shipments are identified when they occur, and *item acceptance* is based on records provided with partial shipments.
- (b) Bulk chemical and gases receipts are performed in accordance with predefined maintenance activities as described in N-PROC-MA-0019, Production Work Management. Storage and handling of chemicals and gases is in accordance with Occupational Health and Safety Act and Workplace Hazardous Information Management System requirements.
- (c) Accepted *items* are tagged or identified with corresponding CAT ID number. For those *items* flagged as traceable, a UTC number is generated that will relate trace information such as *contract* number, heat number, serial number batch number, lot number, etc to CAT ID. CAT IDs and UTC are affixed to *items* using appropriate methods. When an *item* is subdivided, CAT ID (as a minimum) and UTC numbers (if required) are transferred to each part.
- (d) Special handling requirements are identified on the receiving report and *items* are handled in accordance with N-PROC-MM-0043, by appropriately qualified personnel. Special handling practices may involve rigging and hoisting, hazardous materials, etc. *Items* identified on receiving reports as requiring Receiving Inspection are appropriately tagged and physically staged for Receiving Inspection.

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Items transferred between facilities are matched only to CAT ID and internal transfer number, since receipt inspection has already been completed at the facility that originally received the *item*. The sending Warehouse First Line Manager initiates collection of copies of supplier provided documentation as specified in the original *contract*. Documentation is transferred to the receiving facility, for storage as required by OPG-PROG-0001.

1.5.3 Quality Control Inspection [B-19] [B-29] [B-31] [B-33] [B-36] [B-37] [B-38] [B-48] [B-70] [B-71] [B-35] [B-69]

N-PROC-MM-0021, Supply Inspection

- (a) Product verification may be performed at the supplier’s works when specified, and/or at time of receipt (default). All *items* shall go through Receiving Inspection except for QL-4 and *items* listed in N-LIST-08135.4-10000 to verify conformance to technical requirements which may include identification, traceability, physical attributes, and required records and/or documentation as specified by within the CAT ID.
- (b) Review of supplier submitted documentation for *acceptance* is conducted by the Receiving Inspector or a designated, qualified OPG employee. Supplier’s QA Program status is also matched against *item* requirements at time of *item* receipt.
- (c) Where inspection, examination, or tests as required by ASME Section III or VIII, and critical characteristics of *acceptance* have not been identified, Receiving Inspection quarantines the *item* or material and raises an OSD&D for resolution of the nonconformance.
- (d) *Items* requiring Commercial Grade Dedication (CGD) are inspected or examined by qualified personnel. CGD is used where purchases from unapproved suppliers are required. All required *acceptance* documentation is collated and retained with receiving records by the Inspector. Commercial grade *items* are not used in PB applications.
- (e) Partial shipments are identified, and PB *items* are verified against partial history docket.
- (f) Tooling and measurement standards requiring periodic inspection and/or calibration are identified in the *Nuclear Tool Management System*. Re-calibration (by OPG) is performed by facility maintenance staff (refer to N-PROC-MA-0004, Conduct of Maintenance). Re-calibration and equipment maintenance beyond OPG’s capabilities is performed as an external service by qualified suppliers. Specific process instructions are used to differentiate repetitive re-calibrations from external repairs processes.
- (g) A record of inspection, including identity of person performing the work, is maintained electronically and physically, and is traceable to the *item*. Physical records are retained in an Inspection File managed in accordance with OPG-PROG-0001.
- (h) *Item* characteristics are checked against *item* description data and characteristics of *acceptance*. Mismatches are treated as nonconformances.

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1.5.4 Nonconformances [B-19] [B-33] [B-38] [B-71]

N-PROC-MM-0042, Nuclear Warehousing Core Duties

- (a) Nonconformances discovered at time of receipt are documented in OSD&D reports and routed for disposition. Nonconforming *items* are quarantined, segregated and identified as nonconforming pending disposition. Technical nonconformances are resolved by Engineering or the appropriate DA, including approval by the Authorized Inspector or by the Authorized Inspector for PB *item* changes to design. Nonconformance of PB *items*, for any reason other than missing or unacceptable documentation, shall be reported to the PB Inspection Technologist or PB Engineer for disposition in accordance with N-INS-01913.11-10003, Pressure Boundary Nonconformances.
- (b) Nonconformances of a commercial nature are resolved by the *Procurement Agent*, who may invoke the support of any OPG resource as required. The *Procurement Agent* ensures *contract* revisions are issued to document nonconformances addressed by the supplier.
- (c) *Items* may be released on a conditional basis as described in N-PROC-MM-0042. Traceable nonconforming *items* are tracked to point of installation using UTC identifier.
- (d) Nonconforming *items* identified through various warehousing processes outside of receiving are managed in accordance with N-PROC-MM-0042. Designated *items* are removed from use, identified as nonconforming, and secured as required.

1.5.5 Distribution [B-39] [B-49] [B-72]

N-PROC-MM-0042, Nuclear Warehousing Core Duties

Following receipt, *items* are either staged for immediate issue or put away for future use. Handling of *items* is in accordance with requirements specified by Engineering (QL-1, QL-2, and QL-3) or the Material Analyst (QL-4) as described in CAT ID data.

Item packaging, storage and handling activities are performed in accordance with N-PROC-MM-0043. If storage and handling requirements are not referenced in the CAT ID data, use requirements of Electric Power Research Institute (EPRI) TR-107101, Packaging, Shipping, Storage and Handling Guidelines for Nuclear Power Plants.

Warehouse personnel ensure *item* identification is applied or transferred if shipment of material or *item* is subdivided. *Items* requiring configuration control or which are stocked in OPG warehouses are identified by CAT ID number as a minimum.

Items requiring traceability (including shelf life) are also assigned an UTC number. *Items* are re-packaged into Issue Units where economically feasible, to preserve *item* integrity and to reduce fire loading in the operating facility. *Item* identification is via electronically matched CAT ID number, short description, bar code and UTC number (if assigned). *Item* storage conditions are consistent with requirements specified with the CAT ID data.

Items are protected from foreign material ingress using caps, and protective covers as established in N-PROC-MA-0018, Foreign Material Exclusion.

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Items subject to carbon or halogen contamination are segregated and monitored for signs of storage condition degradation.

Heavy loads are handled in accordance with OPG-MAN-09180-0001, Hoisting and Rigging Handbook.

(a) Issues from Stock

- (1) *Items* are picked, staged and issued to meet the requirements identified by MRs and Facility Transfers.
- (2) On-Demand Picks are generated either for Facility Transfers to another Supply Chain facility or for unplanned MRs. Scheduled Picks for planned MRs are generated automatically in accordance with established system preferences.
- (3) *Item* staging takes place for planned work in order to ensure *items* are available for work execution.
- (4) *Item* issuing takes place at point pickup or delivery. *Items* are checked at time of issue, to ensure identification matches requirements, *item* shelf life is within acceptable limits and that no obvious deterioration has occurred while in storage. *Items* subject to regulatory controls are only issued to a Work Order or Bill of Material (BOM) to ensure conformance with design requirements.
- (5) *Item* UTC information is a required input to establish traceability of a particular *item* to a work order and equipment code.

(b) Return to Stock

- (1) Stocked *items* that are not utilized or consumed may be returned to stock for credit. Only *items* that are usable, have traceability, and identification maintained are accepted. Those *items* which have been tampered with, or have lost or questionable traceability, are identified for surplus and disposal. Direct-Charge *items* surplus to the originating Work Order may be converted to stocked inventory at the discretion of Supply Chain Inventory Management.
- (2) Return *acceptance* consists of validating *item* traceability through matching *item* UTC number and CAT ID with issue transaction information. Where identified traceability does not align with issue records, *item* is made surplus.
- (3) Returned *items* are monitored for radiological hazards in accordance with N-PROG-RA-0013, Radiation Protection (when returned from operating island), identification and packaging integrity by Warehouse personnel. Safety related and CGD *items* are subject to inspection in accordance with N-PROC-MM-0042.
- (4) Stock-keepers shall review all QL *items* and determine if they can be accepted as new or equivalent to new; *items* will only be sent to Receiving Inspection if unable to determine the acceptability of an *item*.

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- (5) Where a qualified Receiving Inspector is required to support the return inspection activities, they will use original *acceptance* criteria applicable to an *item*'s physical condition.
- (6) Hazardous materials are accepted into stock only when the issue unit container is undamaged (including labelling) and has not been opened.

1.5.6 Storage [B-39] [B-72]

(a) N-PROC-MM-0042, Nuclear Warehousing Core Duties

- (1) *Item* storage conditions are specified in accordance with NQA1, Sub-Part 2.2 Section 601, by Engineering or Material Analyst for each CAT ID. Warehouse personnel ensure *item* storage locations match specified storage levels at time of put away and during ongoing warehouse activities. *Items* are protected from adverse environmental conditions while awaiting issue, being transferred, shipped, returned or stored. Cleaning and preservation, if required, is specified at the CAT ID level, identified by Engineering and is performed in accordance with Engineering-approved procedures.
- (2) Access to warehouse storage locations is restricted to persons who are performing warehouse functional activities (unless invited or performing monitoring, audit or surveillance activities).

(b) In-Storage Maintenance

N-PROC-MM-0043, Nuclear Warehousing Support Duties

In-storage maintenance activities are specified in the CAT ID details in accordance with N-PROC-MM-0008. Work is identified, planned, scheduled, performed, and completed in accordance with locally-managed databases. Completion of in-storage maintenance is documented in work order completion notes as specified in N-PROC-MA-0006, Work Performance, or as required by N-PROC-MM-0043. In-storage maintenance procedures are developed or maintained as part of the work assessment process, as prescribed in N-PROC-MA-0019. Access is provided to trade groups required to perform maintenance activities. Maintenance activities may include the following:

- Verification of *item* traceability,
- Confirmation of storage conditions,
- Packaging,
- Orientation,
- Specified tests and inspection.

1.5.7 Shipping

N-PROC-MM-0042, Nuclear Warehousing Core Duties

- (a) *Items* may be shipped offsite for a number of reasons:
 - Requests from *item* users,

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- Inter-facility transfers,
 - OSD&D disposition,
 - *Item* sale,
 - For repair or rework by an external service provider.
- (b) Shipping restrictions are specified by the requestor and translated in applicable shipping documentation by warehouse personnel.
- Note:** Prior to shipping items outside of Canada, the requisitioner shall identify whether or not an export license issued by the Canadian Nuclear Safety Commission (CNSC) is required in accordance with N-PROC-RA-0130, Renewal and Amendment of CNSC Issued Licenses.
- (c) Packaging for outbound shipments shall be performed in accordance with N-PROC-MM-0043.
- (d) Shipping activities shall conform to the requirements of the Transportation of Dangerous Goods Act, Highway Traffic Act and EPRI TR-107101.
- (e) Requestors and Supply Chain personnel contact Transportation Field Coordinator, for non-routine requirements applicable to shipment of goods.

1.6 Item Surplus and Disposal [B-34] [B-40] [B-73]

OPG-PROC-0081, Investment Recovery: Disposal of Surplus Assets
 N-PROC-MM-0036, Identification and Disposition of Surplus Items

- (a) Surplus *items* are identified to Inventory Management and/or Investment Recovery in the following ways:
- User identified,
 - As a result of engineering design changes and effects on equipment and corresponding spares (design obsolescence),
 - Supplier-initiated changes to products or models that make existing stock obsolete (technical obsolescence),
 - Changes in *item* consumption patterns resulting in excess quantities on-hand.
 - *Item* standardization projects,
 - Replacement of hazardous products (refer to OPG-PROG-0010),
 - Disposition of nonconforming *items*.
- (b) *Items* confirmed as no longer required to support the business are declared surplus, and inventory removed from stock. Inventory adjustments are made to reflect altered quantities. Identification and traceability to OPG is removed and *items* are prepared for shipment. *Items* staged for disposal or investment recovery are clearly marked with “surplus” identification. In *nuclear*, returns for disposal are managed in accordance with N-PROC-MM-0042.
- (c) Changes to CAT ID information are executed in accordance with N-PROC-MM-0008.

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- (d) OPG utilizes shared inventory strategies including common spares (between facilities) and industry wide inventory data repositories.

1.7 Manage Waste Stream

Warehouse ensures minimal packaging and dunnage enters the operating island. Recoverable packaging and dunnage is used where cost effective.

Supply Chain develops waste minimization strategies with key suppliers.

1.8 Rework and Repair - Nuclear [B-5]

N-PROC-MM-0037, Repairs, Refurbishment and Warranty Process

- (a) *Items* removed from plant equipment may be disposed of, reworked or repaired. Rework and repairs are performed by internal resources as defined in N-PROC-MA-0019. *Items* awaiting internal rework or repair are tagged and may be temporarily stored in a segregated area of the warehouse. *Items* sent for external rework or repair are processed as a Return and routed to a qualified service provider. The process and steps required to disposition *items* that are returned to the Warehouse for either internal or external repair, or returns to inventory is identified in N-PROC-MM-0037.
- (b) Status of rework and repair work is maintained in Asset Suite. Cost of rework and repair work is subject to OAR requirements in the same manner as for new work.
- (c) Inspection requirements and documentation for reworked and repaired *items* must meet same requirements as for original *items*.
- (d) Repair requirements for PB *items*, including submission of repair procedures, are established in accordance with the requirements of “Request for Services” section of this document.

1.9 Fleet Management Services

OPG-PROC-0162, Fleet Management, specifies process requirements used to request, approve and manage OPG commercial fleet, and the administration of employer-provided vehicles.

- (a) A categorization schema has been developed to manage OPG’s Fleet. Also included is the administration of Fleet gas and maintenance cards, issued by Fleet Management Services (FMS) for a given vehicle or group of vehicles.
- (b) Leased and Assigned Vehicles are obtained from OPG Preferred Fleet Vendors (PFV) using online ordering tools.
- (c) Procurement of non-Fleet Assets is performed in accordance with OPG-PROC-0058. All other equipment rentals shall be done at the local business unit level and require no involvement from FMS.

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- (d) Vehicle maintenance is performed in accordance with the manufacturer’s schedule (based on time or mileage). All vehicles must be fully inspected at least once a year by a licensed mechanic in a facility or shop that accepts OPG’s PFV Fleet Card.

1.10 Personnel and Training Qualifications [B-2]

N-TQD-423-00001, Nuclear Supply Chain Training and Qualification Description

- (a) Persons performing Supply Chain activities are selected based on competencies and qualifications. Each position identifies minimum education and experience requirements.
- (b) Training requirement for *nuclear* personnel involved in Supply Chain activities are documented in N-TQD-423-00001, and managed through a series of specifically assigned qualification identifications. These qualification identifications contain minimum training requirement for Supply Chain personnel to execute their responsibilities. Training requirements for personnel involved in Supply Chain fuels processes are assessed, planned and conducted in accordance with N-PROG-TR-0005, Training.
- (c) Qualification identifications and personnel training records are managed in accordance with N-PROC-TR-0021, Training and Qualification Description Development and Approval Process, and N-PROC-TR-0012, Records and Documentation.

2.0 ROLES AND ACCOUNTABILITIES

2.1 Chief Supply Officer

- 2.1.1 Establishes a governing document framework that meets regulatory requirements, ensures effective and efficient planning for, and procurement of *items* and services and the disposal of surplus *items*.
- 2.1.2 Accountable to the Chief Nuclear Officer and works in partnership with the *nuclear* organization to ensure the integrity of the Nuclear Management System (N-CHAR-AS-0002) is maintained in accordance with the expectations of the Chief Nuclear Officer
- 2.1.3 .Establishes and communicates performance measures that monitor the effectiveness and efficiency of OPG’s procurement and asset disposal programs.
- 2.1.4 Ensures program aligns with OPG strategic direction.
- 2.1.5 Ensures on-going process training is aligned to Supply Chain procedures.
- 2.1.6 Resolves *items* and services process conflicts.

2.2 VP, Supply Chain – Materials

- 2.2.1 Ensures Supply Chain governing document framework is maintained.
- 2.2.2 Assumes role of Program Authorization Authority.

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- 2.2.3 Ensures through regular reviews that the program accurately reflects procurement, warehousing, inventory management, and supplier audit strategies and processes for delivery of *items* and services.
- 2.2.4 Exercises authority and accountability for decisions affecting life cycle of inventory including, but not limited to, acquisition, disposal, and obsolescence.
- 2.2.5 Provides guidance and support to process Single Point of Contact (SPOC) for analysis and assessment of processes by establishing performance measures and internal assessment schedules.
- 2.2.6 Ensures all proponents and suppliers are treated fairly, ethically and responsibly in accordance with OPG's Code of Business Conduct and the current Provincial Procurement Directive.
- 2.2.7 Ensures OPG procurement processes, practices, and interfaces specified in this program are implemented.
- 2.3 VP, Supply Chain – Services**
 - 2.3.1 Provides guidance and support to process Single Point of Contact (SPOC) for analysis and assessment of processes by establishing performance measures and internal assessment schedules.
 - 2.3.2 Ensures all proponents and suppliers are treated fairly, ethically and responsibly in accordance with OPG's Code of Business Conduct and the current Provincial Procurement Directive.
 - 2.3.3 Ensures OPG procurement processes, practices, and interfaces specified in this program are implemented.
- 2.4 Senior Manager, Supply Chain – RG Plant Services**
 - 2.4.1 Exercises authority and accountability for decisions affecting life cycle of inventory including, but not limited to, acquisition, disposal, and obsolescence.
 - 2.4.2 Ensures facilities and resources required to provide *items* and services are appropriate to meet requirements of this program.
 - 2.4.3 Provides access to controlled documents required for execution of work.
 - 2.4.4 Ensures all proponents and suppliers are treated fairly, ethically and responsibly in accordance with OPG's Code of Business Conduct and the current Provincial Procurement Directive.
 - 2.4.5 Ensures OPG procurement processes, practices, and interfaces specified in this program are implemented.
 - 2.4.6 Ensures oversight of vendor procurement processes during large *nuclear* projects and *nuclear* ESMSA related projects is conducted.

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2.5 Senior Manager, Supply Chain – Centralized Warehouse

- 2.5.1 Acts as Process SPOC for governing procedures related to warehouse management functions.
- 2.5.2 Ensures facilities and resources required to receive, manage, and issue *items* to station personnel are appropriate to meet requirements of this program.
- 2.5.3 Ensures warehousing processes, practices, and interfaces specified in this program are implemented.

2.6 Senior Manager, Supply Chain Quality Services - Supplier Audits and Quality Performance

- 2.6.1 Reports to the VP, Supply Chain - Services, and has direct access to executive management for the resolution of quality issues.
- 2.6.2 Qualifies and maintains records of qualification of auditors.
- 2.6.3 Responsible for ASL maintenance, including conducting supplier qualification evaluations.
- 2.6.4 Ensures that the results of the contractors' QA program audits are acceptable when the audit portion of the procurement QA program is performed by a service provider.
- 2.6.5 Manages quality performance of critical suppliers and responsible for escalation actions, as required.
- 2.6.6 Responsible for the preparation of quality Key Performance Indicators for critical suppliers.
- 2.6.7 Responsible for the evaluation of the vendor quality related incidents.
- 2.6.8 Maintains records of supplier qualifications.

2.7 Senior Manager, Supply Chain Quality Services - Supplier Inspection and Oversight

- 2.7.1 Reports to the VP, Supply Chain - Services, and has direct access to executive management for the resolution of quality issues.
- 2.7.2 Ensures all Supplier Inspection and Oversight activities are performed in accordance with written and approved Policy, Standards, Programs and all applicable rules, regulations, codes, standards and requirements of OPG.
- 2.7.3 Manages and supervises oversight processes, procedures and staff.
- 2.7.4 Assigns qualified and trained staff to perform Procurement Oversight activity.
- 2.7.5 Qualifies and maintains records of qualification of staff performing oversight activities.
- 2.7.6 Assures that oversight is performed in in accordance to established governance and procedures.

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- 2.7.7 Resolves significant quality issues as required.
- 2.7.8 Communicates oversight activities and results with Project Manager.
- 2.8 Manager, Supply Inspection Services**
 - 2.8.1 Manages and supervises source surveillance and receipt inspection processes, procedures and staff.
 - 2.8.2 Assigns qualified and trained staff to perform source surveillance and receipt inspection activities.
 - 2.8.3 Qualifies and maintains records of qualification of staff performing source surveillance and receipt inspection activities.
 - 2.8.4 Ensures Supply Inspection activities are performed in accordance to established governance and procedures.
 - 2.8.5 Ensures Supply Inspection procedures are prepared and maintained.
- 2.9 Senior Manager, Supply Chain – Fleet Purchasing**

Manages Investment Recovery Services on behalf of OPG.
- 2.10 Senior Manager, Supply Chain – Category Management**

Manages Fleet Management Services on behalf of OPG.
- 2.11 Senior Manager, Business Systems Integration**

Assumes role of Program Owner in accordance with N-PROG-AS-0001.
- 2.12 Director, Design Engineering (*Nuclear*)**
 - 2.12.1 Ensures required Design Engineering support is available in a timely manner to resolve *item* technical issues.
 - 2.12.2 Ensures accuracy and completeness of engineering outputs needed to specify *items* and safety-related or technical services.
- 2.13 Director, Nuclear Oversight**

Conducts independent monitoring and assessment of Supply Chain QA program requirements.
- 2.14 Manager, Design Engineering**
 - 2.14.1 Establishes requirements for a managed process of creating and maintaining procurement specifications for replacement *items*, equipment, components, parts, and services.

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2.14.2 Supports Supply Chain during the procurement of safety-related *items* by recommending disposition of technical nonconformances and responding to buyer inquiries.

2.15 Director, Nuclear Safety

2.15.1 Ensures accuracy and completeness of engineering outputs needed to specify *nuclear* fuel bundles and related materials.

2.15.2 Identifies QA program level requirements for fuel conversion and manufacturing services.

2.15.3 Ensures required design and engineering support is available in a timely manner to resolve material technical issues.

2.15.4 Ensures that post irradiation fuel inspection program results are communicated to Senior Manager, Supply Services – Waste / IRI / Fuels, in a timely and effective manner.

2.15.5 Ensures that all station fuel performance events, which may be related to manufacturing and/or supply, are reported to Nuclear Fuel Supply Services.

2.15.6 Ensures station fuel usage and inventory information is provided to Nuclear Fuel Supply Services on a monthly basis.

2.16 VP, Engineering and Technical Services (RG)

2.16.1 Ensures required engineering support is available in a timely manner to resolve *item* technical issues including nonconformances.

2.16.2 Establishes requirements for a managed process of creating and maintaining procurement specifications for replacement *items*, materials, equipment, components, parts, and services.

3.0 DEFINITIONS AND ACRONYMS

3.1 Definitions

Acceptance is the employment of methods to produce objective evidence, which provides reasonable assurance *item* received is *item* specified.

A **Contract** is an agreement between two or more competent persons or companies to provide *items* and/or services. A PO, including a *contract* standard, technical specifications, scope of work, etc., becomes a *contract* when accepted by a supplier. *Acceptance* may be in writing or by performance, unless the PO requires *acceptance* in writing. An agreement based on a template agreement becomes a *contract* when agreed to and executed by a supplier and OPG.

Critical Spare refers to an *item* that is a component, or part thereof, belonging to Criticality Code 1 or 2 equipment, deemed to be readily available to mitigate risks to safety or production. The criteria for determining critical components are defined in N-PROC-MA-0077, Critical Equipment Identification and Categorization.

Item refers to contractual raw materials, parts, components, subassemblies, assemblies, equipment subsystems, systems, structures, or finished product.

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Material Resource Plan (MRP) refers to a formal computerized approach to inventory planning and management. (e.g., AS7 CAT ID set up for Stock Model/SS/ROP/TMAX, “auto req”, “auto award”, etc.)

Non-Nuclear refers to RG, Corporate and centre-led LOB.

Nuclear refers to the nuclear LOB.

Procurement Agents refers to OPG personnel with OAR purchasing authority and includes: Analyst/Buyer, Senior Procurement Specialist, Assistant Procurement Specialist, Senior Specialist Strategic Planning, and Materials Specialist.

Reorder point (ROP) a stocking parameter term for the level of inventory which triggers an action to replenish that particular inventory stock.

Safety Stock (SS) also called **buffer stock** is a stocking parameter term used to describe a level of extra stock that is maintained to mitigate risk of *stock out* (shortfall in raw material or packaging) due to uncertainties in supply and demand.

Stock Model: refers to a set of ideas and equations used to determine the inventory levels (i.e. ROP, SS, TMAX and is used as part of AS7 MRP).

Stockout, or **out-of-stock** event is an event that causes inventory to be exhausted.

Stocking Parameters – Are mathematical models and variables used to determine stocking/inventory levels (i.e. Stock Model, SS, ROP, TMAX).

Target Maximum (TMAX) is a stocking parameter term represents a new targeted stock level following the reorder.

3.2 Abbreviations and Acronyms

ASL	Approved Supplier List
AS7	Asset Suite 7
BOM	Bill of Material
CANPAC	CANDU Procurement Audit Committee
CAT ID	Catalogue Identification
CGD	Commercial Grade Dedication
CSA	Canadian Standards Association
DA	Design Authority
EPRI	Electric Power Research Institute
ERN	Electronic Re-Order Notice
ESMSA	Engineered Services Master Service Agreement
FMS	Fleet Management Services
IRI	Inspection and Reactor Innovation
ISO	International Organization for Standardization

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ITP	Inspection and Test Plans
KPI	Key Performance Indicator
LOB	Line of Business
MR	Material Request
MRP	Material Resource Plan
NUPIC	Nuclear Procurement Issues Committee
OAR	Organizational Authority Register
OPEX	Operating Experience
OPG	Ontario Power Generation
OPGN	Ontario Power Generation Nuclear
OSD&D	Over, Short, Damaged & Discrepant
PB	Pressure Boundary
PFV	Preferred Fleet Vendor
PO	Purchase Order
PR	Purchase Requisition
QA	Quality Assurance
QC	Quality Control
QL	Quality Level
QSC	Quality System Certificate
RFP	Request for Proposal
RFQ	Request for Quotation
RG	Renewable Generation
ROP	Re-Order Point
SCQS	Supply Chain Quality Services
SCR	Station Condition Record
SPOC	Single Point of Contact
SQC	System Quality Certificate
SS	Safety Stock
TMAX	Target Maximum
TSSA	Technical Standards and Safety Authority
UTC	Uniquely Tracked Commodity
VL	Vendor List
VP	Vice President

4.0 BASES AND REFERENCES

4.1 Bases

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[B-2]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.5.2.
[B-3]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.7.4.
[B-4]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.8.
[B-5]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.8.1 (c).
[B-6]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.9.
[B-7]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 4.12.
[B-8]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.5.
[B-9]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.1.
[B-10]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2.
[B-11]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (a).
[B-12]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (b).
[B-13]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (c).
[B-14]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (d).
[B-15]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (e).
[B-16]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (f).
[B-17]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (g).
[B-18]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (h).
[B-19]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (i).
[B-20]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (j).
[B-21]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (k).

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[B-22]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.2 (l).
[B-23]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.3.1.
[B-24]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.3.2.
[B-25]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.3.3.
[B-26]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.3.4.
[B-27]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.3.5.
[B-28]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.4.
[B-29]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.5.
[B-30]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.6 (a).
[B-31]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.6 (b).
[B-32]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.6 (c).
[B-33]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.6 (d).
[B-34]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.6 (e).
[B-35]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.7.
[B-36]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.8.1.
[B-37]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.8.2.
[B-38]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.9.
[B-39]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.10.
[B-40]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.10 (e).
[B-41]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11.
[B-42]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11 (b).

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[B-44]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11 (d).
[B-45]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11 (e).
[B-46]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11 (f).
[B-47]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.6.11 (g).
[B-48]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.7.4 (d).
[B-49]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 7.7.4 (f).
[B-50]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.1.
[B-51]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2.
[B-52]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (a)
[B-53]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (b).
[B-54]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (c).
[B-55]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (d).
[B-56]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (g).
[B-57]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (i).
[B-58]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (j).
[B-59]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (k).
[B-60]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.2 (l).
[B-61]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.3.1
[B-62]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.3.2.
[B-63]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.3.3

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[B-64]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.3.4
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[B-66]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.4.
[B-67]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.5.
[B-68]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.6.
[B-69]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.7
[B-70]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.8.
[B-71]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.9.
[B-72]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.10.
[B-73]	CSA N286-12, "Management System Requirements for Nuclear Facilities, clause 9.5.10 (e).

4.2 References

4.2.1 Performance References

EPRI TR-107101, Packaging, Shipping, Storage and Handling Guidelines for Nuclear Power Plants

FIN-PROC-0031, Fuel-in-man Inventory and Materials and Supplies Inventory Accounting

N-FORM-10170, Approved Suppliers List - Action Request

N-INS-01913.11-10003, Pressure Boundary Nonconformances

N-INS-08173-10005, Supplier Audits

N-INS-08173-10051, Nuclear Fuels – Procurement Planning

N-INS-08180-10002, PASSPORT Security Administration

N-LIST-08135.4-10000, Procurement Engineering Exclusion List

N-MAN-01913.11-10000, Pressure Boundary Program Manual

N-PROC-AS-0078, Nuclear Performance Monitoring and Reporting

N-PROC-MA-0006, Work Performance

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- N-PROC-MA-0018, Foreign Material Exclusion
- N-PROC-MA-0077, Critical Equipment Identification and Categorization
- N-PROC-MM-0008, Catalogue Information: Create, Maintain and Replenish
- N-PROC-MM-0010, Establishing and Maintaining Ontario Power Generation Approved Suppliers List
- N-PROC-MM-0021, Supply Inspection
- N-PROC-MM-0036, Identification and Disposition of Surplus Items
- N-PROC-MM-0037, Repairs, Refurbishment and Warranty Process
- N-PROC-MM-0041, Quality Engineering and Supplier Performance Management
- N-PROC-MM-0042, Nuclear Warehousing Core Duties
- N-PROC-MM-0043, Nuclear Warehousing Support Duties
- N-PROC-MP-0078, Specification, Review, Acceptance and Use of Vendor Technical Documents
- N-PROC-MP-0098, Procurement Engineering Activities
- N-PROC-RA-0023, Fleetview Program Health and Performance Reporting
- N-PROC-RA-0035, Operating Experience Process
- N-PROC-RA-0097, Self-Assessment and Benchmarking
- N-PROC-TR-0012, Records and Documentation
- N-PROC-TR-0021, Training and Qualification Description Development and Approval Process
- N-PROG-AS-0001, Nuclear Management System Administration
- N-PROG-AS-0005, Business Planning
- N-PROG-MA-0004, Conduct of Maintenance
- N-PROG-MA-0019, Production Work Management
- N-PROG-MP-0017, Cyber Security
- N-PROG-RA-0003, Performance Improvement
- N-PROG-RA-0010, Independent Assessment
- N-PROG-0013, Radiation Protection

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- N-PROG-TR-0005, Training
- N-STD-MA-0008, Station Material Condition and Housekeeping
- N-STD-MP-0027, Configuration Management
- N-TQD-423-00001, Nuclear Supply Chain Training and Qualification Description
- OPG Hoisting and Rigging Handbook
- OPG-INS-08173-0007, Supplier Management
- OPG-PROC-0001, Process Administrative Governance Documents
- OPG-PROC-0058, Procurement Activities
- OPG-PROC-0060, Requisitioning Items and Services
- OPG-PROC-0081, Investment Recovery: Disposal of Surplus Assets
- OPG-PROC-0131, Personal Protective Equipment
- OPG-PROC-0136, Falling Object Prevention
- OPG-PROC-0137, Fall Protection
- OPG-PROC-0162, Fleet Management
- OPG-PROC-0195, Supply Chain Business Continuity
- OPG-PROG-0001, Information Management
- OPG-PROG-0010, Health and Safety Management System Program
- OPG-STD-0017, Organizational Authority Register
- OPG-STD-0141, Supplier Code of Conduct

4.2.2 Developmental References

- CSA N286-12, Management System Requirements for Nuclear Facilities
- D-ED-01520-10001, Darlington Equipment Identification
- EPRI NP-5652, Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications (NCIG-07)
- EPRI NP-6406, Guidelines for Technical Evaluation of Replacement Items in Nuclear Power Plants (NCIG 11)

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- EPRI NP-6629, Guidelines for the Procurement and Receipt of Items for Nuclear Power Plants (NCIG-15)
- EPRI NP-6896, Guidelines for Determining In-Storage Maintenance of Items for Nuclear Facilities (NCIG-18)
- EPRI NP-7218, Guideline for the Utilization of Sampling Plans for Commercial Grade Item Acceptance
- EPRI TR-102260, Supplemental Guidance for Application on EPRI report NP-5652 on the Utilization of Commercial Grade Item
- EPRI TR-102544, Issues Related to the Inter-Utility Transfer of Materials
- EPRI TR-107101, Packaging, Shipping, Storage and Handling Guidelines for Nuclear Power Plants
- Highway Traffic Act
- National Association of Purchasing Manager’s Glossary of Key Purchasing and Supply Terms
- Ontario Power Generation Inc. Standard Commercial Conditions (various) (see Ontario Power Generation Supply Chain website)
- Provincial Procurement Directive (2014)
- Supply Chain Council – Supply Chain Operations Reference model
- Transportation of Dangerous Goods Act

5.0 REVISION SUMMARY

This is an **intent** revision.

- General – Removed N286-05 bases and requirements.
- General – Updated to align with N286-12 requirements.
- General – Document references updated throughout as appropriate.
- General – Job titles updated throughout as appropriate.
- General – Department titles updated throughout as appropriate.
- General – Dispositioned the following DCRs via this document revision: 122300, 131424, 132531, 132806, 132951, 133602, 134245, 134831, 134868, 136139, 138133, 138148, 138392, 138420, 138421, 138880, 139073, 140907, 141535, 141808, 142261, 143731, 143735, 143872, 144927, 145019, 145045.
- Cover Page- Authorization Authorities updated.

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- Cover Page – Revised to indicate the document receives authority from the Supply Chain department.
- Purpose – Bullet (e) revised for clarity.
- Section 1.1 – Revised to provide added clarity about figure 1. Figure 1 revised to correct list of interfacing documents.
- Section 1.1.1 – Job and department titles updated to align with organization.
- Section 1.1.5 – Revised to simplify.
- Section 1.1.6 – Revised to simply language.
- Section 1.1.7 – Section completely rewritten and consolidated with Program Evaluation content (section 1.10 in R002).
- Section 1.1.8 – Previously section 1.11 in R002, moved here in the document and revised to simplify and align with practices.
- Section 1.10 – Added reference to N-PROG-MA-0019, Production Work management.
- Section 1.1.11 (a) – Revised to align with requirements documented in OPG-PROC-0058, Procurement Activities.
- Section 1.1.11 (b) – Bullet simplified.
- Section 1.1.12 – Revised to add reference to N-PROC-RA-0035, Operating Experience Process.
- Section 1.1.13 – Revised to add reference to N-PROG-RA-0012, Fire Protection
- Section 1.1.14 – Revised to add reference to OPG-PROC-0195, Supply Chain Business Continuity.
- Section 1.2.2 (b)(2) – Document reference updated.
- Section 1.2.2 (d)(1) – Revised to remove requirement of supplier proof of design registration at time of quote.
- Section 1.2.3 – Bullets (5), Inventory Planning, and (6), Supply Demand Balancing, are new and have been added.
- Section 1.3.1 (b)(2) – Added reference to contract requisition.
- Section 1.3.2 (a)(3) – Reworded for clarity and to add reference to OPG-INS-08173-0001.
- Section 1.3.2 (a)(6) – Deleted requirement for performance issues to be recorded in performance notes.

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- Section 1.3.2 (a)(7) – Added reference to OPG-STD-0141.
- Section 1.3.2 (b) – Deleted reference to System Quality Certificate (SQC).
- Section 1.3.3 – Entire section rewritten to align with new process requirements documented in OPG-PROC-0058.
- Section 1.4 (g) – Revised to simplify and provide added clarity.
- Section 1.4 (h) – Revised to provide added clarity.
- Section 1.5 – Revised to delete statement that non-nuclear warehousing is not a Supply Chain function.
- Section 1.5.5 – Revised to add reference to OPG-MAN-09180-0001.
- Section 1.5.6 (b) – Revised to remove reference to VP Nuclear Supply Chain as this position no longer exists.
- Section 2.0 – Roles and Accountabilities updated to align with operations and organizations across OPG.
- Section 3.1 – Definitions updated. The following defined terms have been added: Critical spare, Material Resource Plan, ROP, Safety Stock, Stockout, Stocking Parameters, and TMAX.
- Section 3.2 – Abbreviations updated.
- Section 4.1 – Bases revised to remove N286-05 and align with N286-12.