



PROCEDURE 420.3-1C

Title:	OPERATING PROCEDURES AND OPERATOR AIDS
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TABLE OF CONTENTS

1.	PURPOSE	3
2.	APPLICABILITY	3
3.	PROCEDURE	3
	a. Format and Numbering	3
	b. Creation of OPs and OAs	3
	c. Review and Approval	3
	d. Control.....	4
	e. Use of Vendor Manuals in Project or Facility Operations	5
	f. Training	5
4.	RESPONSIBILITIES.....	5
	a. Line Managers.....	5
	b. SARS File Coordinator	5
	c. Operators	6
	d. Responsible Person.....	6
	e. Document Control Subject Matter Expert (SME).....	6
	f. ERD or SOD Webpage Manager	6
5.	TRAINING.....	6
6.	RECORD CONTROL.....	7
7.	REQUIREMENTS	7
8.	REFERENCES	7
9.	DEFINITIONS	7
10.	REVISION HISTORY	9

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ATTACHMENTS

Attachment 1, Flow Chart of the Process

FORMS

NETL Form 421.1-3, [NETL Tier Level 3 Document Cover Sheet](#)

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Procedure 420.3-1C, Operating Procedures and Operator Aids

1. **PURPOSE**

- a. To establish the process for the creation and control of standard operating procedures and operator aids for research and development projects and site operations.

2. **APPLICABILITY**

- a. This procedure applies to all NETL employees, research associates, and visitors to the NETL site.

3. **PROCEDURE**

a. Format and Numbering

- (1) The format of operating plans (OPs) shall conform to DOE Technical Standard 1029-92, "Writer's Guide for Technical Procedures." The writer shall use a graded approach when applying the requirements of the technical standard and shall, at a minimum, apply the content and recommended formatting requirements of section 3 of the standard to their OP.
- (2) The format of operator aids (OAs) shall conform to DOE Technical Standard 1043, "Guide to Good Practices for Operator Aid Postings;" however, they may be subject to other NETL procedures and requirements for format. For example, drawings shall adhere to the NETL drawing control procedure. The writer shall use a graded approach when applying the requirements of the technical standard.
- (3) OPs and OAs shall be numbered using the format defined in NETL Procedure 414.1-2, Document Control.

b. Creation of OPs and OAs

- (1) The responsible person for the operation shall develop OPs as required by the SARS process.
- (2) OAs shall be developed to supplement OPs, but shall not be developed to correct or update OPs. The responsible person for a project or facility operation shall determine the need for, and develop OAs.

c. Review and Approval

- (1) OPs shall be reviewed and approved in accordance with the most current version of the applicable safety analysis and review system (SARS).

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- (2) OAs that have the potential of impacting personnel health and safety or the environment shall be reviewed and approved by the responsible person and line manager who are responsible for the project or facility.
- (3) OAs that cannot have an impact on personnel health and safety or the environment shall be reviewed and approved by the project or facility responsible person.

d. Control

- (1) The official OPs and tier level 3 OAs shall reside with the appropriate SARS file coordinator.
- (2) The document owner shall identify, on the document cover sheet, those individuals which shall receive e-mail from the SARS file coordinator indicating the approval of a new or revised OP.
- (3) The responsible person shall ensure that the most current revisions of OPs and OAs are being used for project or facility operations under his or her control.
- (4) Unofficial copies of the most current revision of an OP shall be obtained from the Engineering Research Division (ERD) or Site Operations Division (SOD) NETL intranet webpage. Unofficial copies of the OP may be used for project or facility operations provided the unofficial copy is the most recent approved revision of the OP.
- (5) Once an OP has been approved, as indicated by a management concurrence signature on the document cover sheet, it shall be considered the official OP for the project or facility. The responsible person shall consider the amount of time it will take for the approved new or revised OP to be posted on the NETL intranet.
- (6) The responsible person shall be permitted to photocopy the most recent approved revision of an OP and use the copy to operate his or her project or facility provided the copy is controlled in accordance with the requirements of this procedure.
- (7) OAs which are made available at the work location shall be posted so that they do not obstruct instrumentation or controls, but are also located where they are most useful to the operator.
- (8) OAs available at the work location shall display proper approvals in accordance with the requirements of this procedure as indicated by signatures and dates on the OAs.
- (9) The quality of individual OPs and OAs are the responsibility of the line manager responsible for the project or equipment.

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e. Use of Vendor Manuals in Project or Facility Operations

- (1) Vendor manuals shall be considered uncontrolled documents in accordance with NETL Procedure 414.1-2, Document Control.
- (2) If a project or facility intends on using a vendor manual for providing work instructions during operations, the OP for that operation shall specifically make reference to the vendor manual.

f. Training

- (1) All operators shall be trained to the individual OPs and OAs prior to using such to control the operation.
- (2) The responsible person for the operation shall verify that training has been completed and documented in accordance with the requirements of the most current version of the applicable SARS procedure.
- (3) Copies of training forms developed in accordance with the applicable SARS procedure shall be sent to the Human Resources Division and the data entered into the computerized human resources information system (CHRIS) for federal employees. For contractors, the information shall be sent to the appropriate control person that the contractor has designated.

4. **RESPONSIBILITIES**

a. Line Managers

- (1) Ensure that OPs and OAs for operations under their control and required by the SARS process are developed, approved, communicated, maintained, and available prior to issue.
- (2) Ensure that operations under their control occur with approved OPs, OAs, and trained operators.
- (3) Ensure that employees under their control receive the necessary training for those operations for which they are responsible.

b. SARS File Coordinator

- (1) Maintain the official controlled versions of the OPs and tier level 3 OAs.
- (2) Ensure a document cover sheet, NETL Form 421.1-3, is attached to all official controlled versions of OPs.

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Procedure 420.3-1C, Operating Procedures and Operator Aids

- (3) Provide e-mail notification to those individuals identified on the document cover sheet when a new or revised OP is received and placed in the official SARS file.
- (4) Immediately upon receipt, convert new and revised OPs to an Adobe PDF electronic format and forward the electronic file onto the respective ERD or SOD webpage manager.

c. Operators

- (1) Ensure they have received training for any relevant OPs or OAs and shall follow those OPs or OAs for control of the operation.

d. Responsible Person

- (1) Develop, maintain, and number OPs and OAs in accordance with the requirements of this administrative procedure.
- (2) Ensure that OPs include specific tasks and duties that relate to normal and emergency, extended idle periods, and decommissioning.
- (3) Ensure that all administrative controls identified for the safe operation of his or her project or facility are contained in the OPs for the project or facility.
- (4) Ensure that approved new and revised OPs, including the signed document cover sheet, are delivered to the appropriate SARS file coordinator prior to use.

e. Document Control Subject Matter Expert (SME)

- (1) Maintain the document control point and parent activity lists for the NETL tiers 3 and 4 document numbering system.
- (2) Provide document numbers for all tier level 3 documents.

f. ERD or SOD Webpage Manager

- (1) Post new and revised OPs received from the SARS file coordinator on the divisional webpage.
- (2) Ensure that obsolete versions of OPs are removed from the division webpage.

5. TRAINING

- a. There are no specific training requirements for this procedure. This procedure shall be used to create, approve, and control OPs and OAs.

- b. Before projects or facilities are operated, the operator of the project or facility shall be trained to the OPs and OAs that pertain to those operations.

6. **RECORD CONTROL**

- a. Records created by this procedure are dispositioned according to Research and Development Records, Item 1a3. Cutoff after project/program completion, cancellation or termination, or in 5-year blocks. Retire to FRC 2 years after termination of project/program. Destroy 10 years after termination of project/program. (N1-434-96-9)
 - (1) NETL Form 421.1-3, [NETL Tier Level 3 Document Cover Sheet](#).
 - (2) Applicable operating procedures for the project.
 - (3) Applicable operator aids for the project.
 - (4) Vendor manuals for the project.

7. **REQUIREMENTS**

- a. NETL Order 420.3, [Conduct of Operations](#).
- b. NETL Order 450.1, [Environmental Management System](#).
- c. DOE Technical Standard 1029, Writer’s Guide for Technical Procedures.
- d. DOE Technical Standard 1043, Guide to Good Practices for Operator Aid Postings.

8. **REFERENCES**

- a. NETL Procedure 421.1-1, [R&D Safety Analysis and Review System](#).
- b. NETL Procedure 421.1-2, [Support Operations Safety Analysis and Review System](#).

9. **DEFINITIONS**

- a. Activity — Activity (in this procedure) is a SARS permitted project or facility.
- b. Administrative Control — An action initiated by a trained operator that, if not performed in accordance with the requirements stated in the approved standard operating procedure for the project or facility, could pose a potential threat to personnel safety or the environment.
- c. Line Management — NETL line management (in this procedure) is the division director who has the authority over a project or facility.

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Procedure 420.3-1C, Operating Procedures and Operator Aids

- d. Operating Procedure (OP) — An approved and controlled set of work instructions for the operation of equipment or a process related to site operations or research and development activities including external vendor manuals. OPs do not include administrative procedures that are covered under the NETL directives program. OPs are considered tier 3 documents.
- e. Operations — Activities performed at NETL by trained operators to control equipment associated with the operations of research and development projects and site operations.
- f. Operator Aid (OA) — NETL approved and controlled information needed to aid the operator in the operation of equipment or a process. Operator aids may include such items as drawings, forms, information tags, graphs, flow charts, and copies of standard operating procedures. OAs shall be referenced in the OPs. OAs that can potentially impact personnel safety or the environment shall be considered tier level 3 documents. OAs that cannot impact personnel safety or the environment shall be considered tier level 4 documents.
- g. Tier Level 3 Documents — Those documents that must be approved at the division director or line management level.
- h. Tier Level 4 Documents — Those documents that must be approved at the activity or RP level.
- i. Vendor Manuals — An **uncontrolled** document or work instruction provided by an equipment manufacturer that is intended to be used by the customer to operate the equipment.
- j. Webpage Manager — The appointed ERD or SOD person in charge of maintaining and updating the divisional NETL intranet webpage.

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10. **REVISION HISTORY**

VERSION	DATE	SUMMARY OF CHANGES
Original	1/15/03	To establish the process for the creation and control of standard operating procedures and operator aids for research and development projects and site operations.
A	2/12/04	These revisions include (1) updating the definition section; (2) adding additional responsibilities for the RP; (3) changing format of the document number from digits separated by decimal points to digits separated by dashes; (4) removing the requirement that all operator aids (OAs) are tier level 3 documents; (5) defining the process for determining the tier level of a document; (6) adding definitions for tier level 3 documents, line management, activity, and webpage manager; (7) revising the method for posting approved operating procedures; (8) defining when an operation is permitted to use a new operating procedure; (9) expanding the scope of responsibilities; and (10) other changes for clarity and consistency.
B	9/8/05	Changes have been made to conform to the new ISO 14001:2004 standard including control of vendor manuals as part of operating procedures. Reference to the EMS Order 450.1 has also been added.
C	12/12/07	Changes have been made to conform to the new OHSAS 18001 specification including control of vendor manuals as part of operating procedures as well as organizational changes within NETL. A records disposition schedule and flow chart of the process were added. The procedure was placed into the new directives format.

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FLOW CHART OF THE PROCESS

Responsible person develops operating procedures as required by the SARS process and prepares operator aids as needed to supplement the operating procedure.

Operating procedures shall be formatted according to DOE Technical Standard 1029-92. Operator aids shall be formatted according to DOE Technical Standard 1043 as well as to any other applicable NETL procedure or requirement. Requirements shall be applied for both using a graded approach. They shall be numbered using the format defined in NETL Procedure 414.1-2.

Operating procedures are reviewed and approved according to the SARS process. Operator aids that have the potential to impact the environment, safety, and health are reviewed and approved by the responsible person and the line manager responsible for the project. Operator aids with no environment, safety, and health impact are reviewed and approved by project or facility responsible person.

Once approved, the official operating procedures and operator aids reside in the SARS file for the project or operation. The SARS file coordinators e-mail indicated individuals that a new operating procedure is available. The responsible person makes sure that the most current revisions are used for the project or operation.

All operators are trained to the individual operating procedure and/or operator aid. The training is verified according to the SARS process (NETL Form 450.1-5).

Note: The responsible person can make copies of the most recent operating procedure and use it to operate the project or operation. Operator aids at the location of the project or operation shall be posted so that there is no obstruction of the operation or project and where it helps the operator the most. Operator aids will display proper approvals as indicated by appropriate signatures and dates.

Vendor Manuals

Vendor manuals shall not be considered controlled documents and shall be referenced in the operating procedure for the project or operation.

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