

# Harnessing the Power of Standard Operating Procedures (SOPs): Streamlining Success in Electrical Construction

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## Team

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## What We Hear From Electrical Contractors

Construction projects are unique, and SOPs do not apply to what we do.



## What We Hear From Electrical Contractors

We know we need SOPs, but they're daunting, complicated, and hard to develop for what we do.

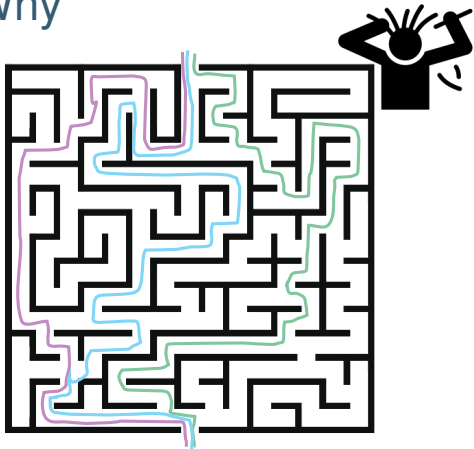


## What We Hear From Electrical Contractors

Oh SOPs, yes, we have a way of doing things.

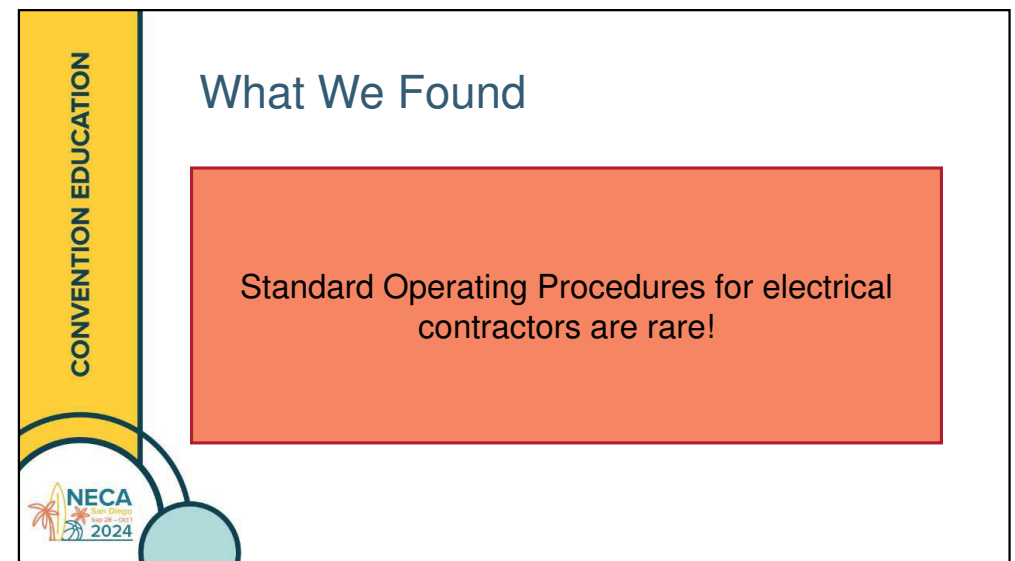
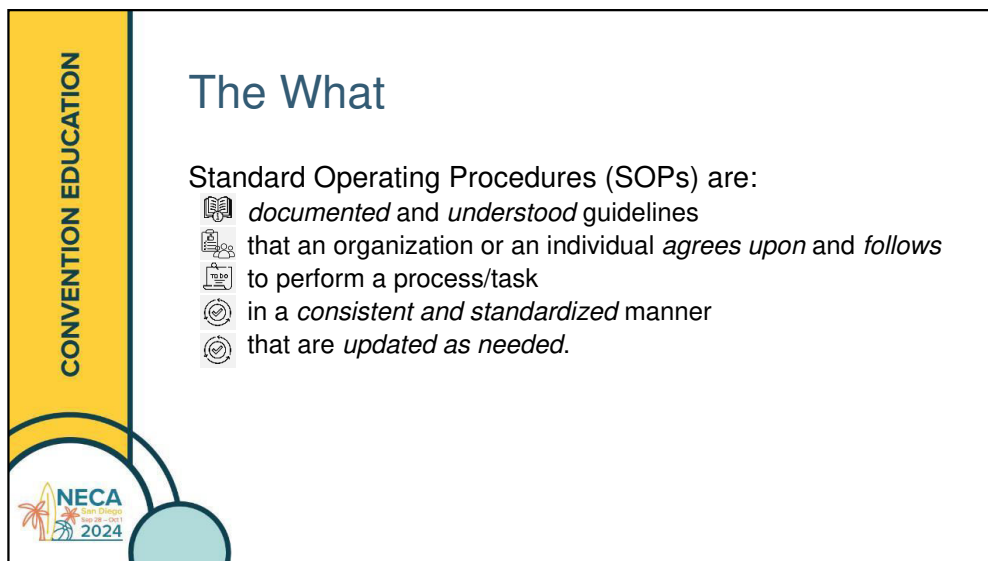
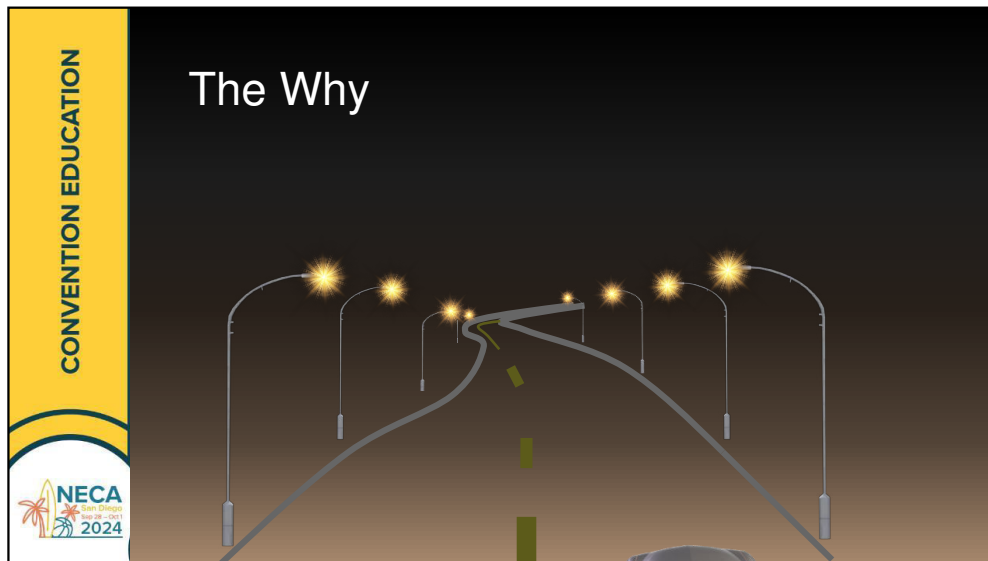


## The Why



## The Why





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# ELECTRI's Research

Equip electrical contractors with the essential resources to effectively establish SOPs.

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# The What

## Standard Operating Procedures

- General and overarching guidelines
- Provides high-level view of procedures
- Aligns tasks with organizational goals and policies
- Strategic documents outlining methods and principles

## Standardized Work Instructions

- Task-specific and detailed instructions
- Step-by-step guide for executing specific tasks
- Removes ambiguity and ensures consistent quality
- Provides granular, technical instructions

vs.

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# Project Deliverables

## SOP for SOPs

Learn more about about SOP through this infographic.

## SOP-Pro Tool

Generate SOPs using the SOP Production Tool.

## Generated SOPs & Tools

Access generated SOPs and associated tools for specific activities.

## Construction Activities SOP

Access a template to generate SOPs for field activities.

## Field Activities SOP

## Project Deliverables

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# SOP for SOPs

## Standard Operating Procedures (SOPs) are documented guidelines and instructions that an organization or an individual follows to perform a task of a process in a consistent and standardized manner.

### Why use SOP?

- Consistency:** SOP ensures tasks are performed the same way every time.
- Efficiency:** SOP saves time, resources, and reduces errors.
- Training Tool:** SOP helps new employee understand their job functions.
- Compliance and Safety:** SOP adheres to regulations and ensures safety.
- Set-up the project for success:** SOP provide a common vision for how projects are to be executed.

### What to include?

- Title
- Scope
- Users
- Definitions
- Roles and Responsibilities
- Procedure Steps
- Revision History
- Appendices

SOPs should be living documents, updated regularly to ensure ongoing efficiency, consistency, and regulatory compliance.

### Phases to create an SOP

- The Initiation Phase
- The Planning Phase
- The Development Phase
- The Implementation Phase

### SOP Format

- Written Procedures
- Flowcharts or Diagrams
- Checklists
- Videos
- Interactive E-Learning Modules
- Infographics


ELECTRI INTERNATIONAL  
Prepared by NCM Consulting, LLC

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## SOP for SOPs



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The Initiation Phase

**Vision**

- Recognize the need for updating or creating SOPs.
- Evaluate impact of non-standardized procedures.
- Define clear vision for new SOPs.
- Communicate vision to stakeholders.

**Consensus**

- Gain stakeholder consensus on SOPs' necessity and benefits.
- Lead discussions to agree on SOPs' key elements and goals.

**Motivations**

- Gather individual and team motivations for SOP changes.
- Emphasize SOPs' benefits on efficiency, safety, and quality.

**Skills**


- Identify skills needed for SOP development, implementation, and adherence.
- Assess the existing skill set.

**Resources**

- Assess resources needed for SOP planning, development, and implementation.
- Allocate resources for efficient SOP development.

**Action Plan**

- Utilize SOP infographic for planning, development, and implementation.
- Define roles, responsibilities, and timelines for SOP production.



**The Lippitt-Knutson Model for Managing Complex Change**

|             | Vision | Consensus | Skills | Motivations | Resources | Action Plan | Success |
|-------------|--------|-----------|--------|-------------|-----------|-------------|---------|
| Confidence  | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |
| Subsidence  | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |
| Anxiety     | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |
| Resistance  | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |
| Frustration | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |
| Fake Starts | ✓      | ✓         | ✓      | ✓           | ✓         | ✓           | ✓       |

Source: <https://www.schumacher.com/schumacher-consulting/control-lab/documents/the-sop-sop>

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## SOP for SOPs



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The Planning Phase

**Create SOP Log**

**Define the Scope**

What is the goal of the SOP?  
Why is the process important?  
When the SOP is to be used?  
Where the SOP is to be used?

**Identify necessary Resources**

Who to involve? (stakeholders)  
What information is available?

**Develop the Procedure**

How to complete a task?  
What visuals and information to include?

**Deploy & Enforce**

How to train?  
Who will conduct the training?  
How to enforce?

**Planning Tools**

What planning tools should we use?



**Identify the Need**

Which processes needs an SOP?

**Identify the Audience**

Who will be using the SOP?

**Plan for Input Collection**

How to gather information?  
How to assign roles and responsibilities?

**Accountability Plan**

Will there be a feedback mechanism? Regular reviews?  
How to measure the SOP's success?


**Feedback & Testing**

How to gather feedback on the draft SOP?  
How to test the SOP?

Source: <https://www.schumacher.com/schumacher-consulting/control-lab/documents/the-sop-sop>

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## SOP for SOPs



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The Development Phase

**Decide on Format**

Written Procedures, Flowcharts or Diagrams, Checklists, Videos, Interactive E-Learning Modules, Infographics, Process Maps, etc.

**Review First Draft**


Expert review  
Novice review  
User feedback

**Train & Implement**

Introduction plan to users  
Training materials  
Training sessions/workshops

**Distribution & Enforcement**

SOP storage  
Accessibility  
Enforcement policy



**Collect Input**

Gather data per the planning phase

**Draft the SOP**

Title, Purpose, Scope, Definitions, Roles and Responsibilities, Procedure Steps, Revision History, Appendices

**Refine the SOP**

Revision based on feedback  
Pilot test  
Multiple reviews as needed

**SOP Updates & Management**

Regular SOP checks  
Feedback mechanism


**Finalize the SOP**

Approval  
Implementation readiness

Source: <https://www.schumacher.com/schumacher-consulting/control-lab/documents/the-sop-sop>

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## SOP for SOPs

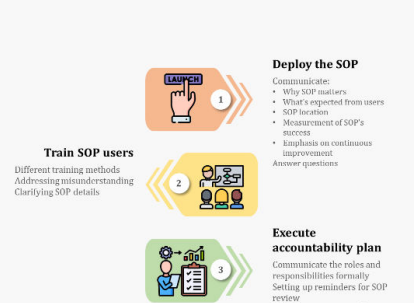


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The Implementation Phase

**Train SOP users**

Different training methods  
Addressing misunderstanding  
Clarifying SOP details



**Deploy the SOP**

Communicate:

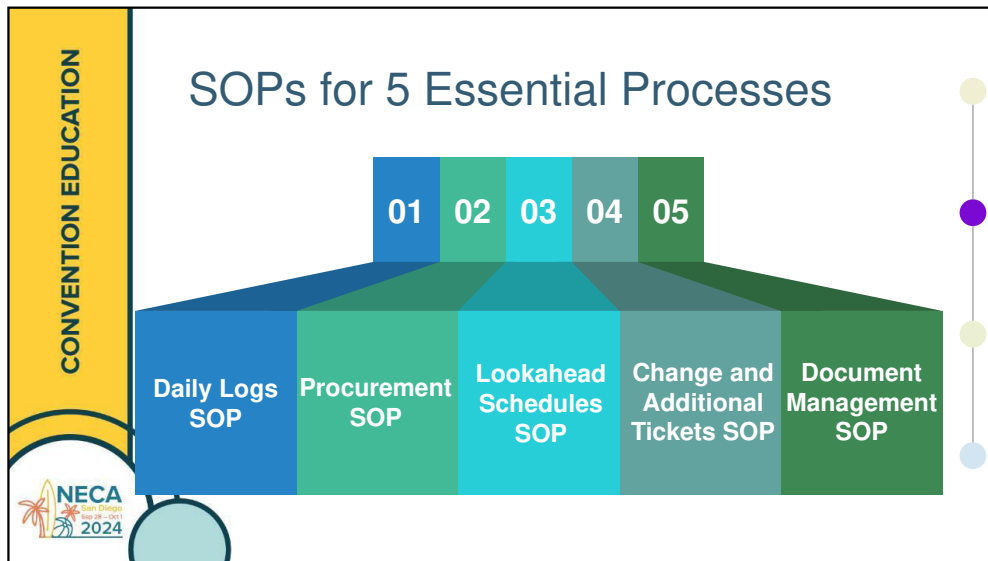
- Why SOP matters
- What's expected from users
- SOP location
- Measurement of SOP's success
- Emphasis on continuous improvement

Answer questions

**Execute accountability plan**

Communicate the roles and responsibilities formally  
Setting up reminders for SOP review  
Launch, promote, monitor, and respond to feedback  
Track metrics and report them to stakeholders

Source: <https://www.schumacher.com/schumacher-consulting/control-lab/documents/the-sop-sop>



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## Daily Logs SOP

**01**

**Daily Logs SOP**

|        |  |
|--------|--|
| Scope: | The <i>Daily Log SOP</i> outlines the information that needs to be captured in a Daily Log at the end of a working day. The purpose is to establish a standardized method to ensure consistency, efficiency, and transparency in project execution.  |
| Why:   | <ol style="list-style-type: none"> <li>1. Maintain good documentation and accountability.</li> <li>2. Ensure quality control.</li> <li>3. Enhance communication and collaboration.</li> <li>4. Serve as valuable evidence in dispute resolution.</li> <li>5. Improve project monitoring and decision-making.</li> <li>6. Increase knowledge retention for future projects.</li> <li>7. Provide the means to train new team members.</li> </ol> |
| Users: | The Daily Log is to be completed by the Field Leader.  |

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## Daily Logs SOP

The screenshot shows a Microsoft Word document titled 'Daily Log SOP'. The document content includes:

**Scope:** This SOP outlines the information that needs to be captured in a Daily Log at the end of a working day. The purpose is to establish a standardized method to ensure consistency, efficiency, and transparency in project execution.

**Why:**

1. Maintain good documentation and accountability.
2. Ensure quality control.
3. Enhance communication and collaboration.
4. Serve as valuable evidence in dispute resolution.
5. Improve project monitoring and decision-making.
6. Increase knowledge retention for future projects.
7. Provide the means to train new team members.

**Users:** The Daily Log is to be completed by the Field Leader.

**Project Information**

☐ Job name:  
☐ Job number:  
☐ Job location:  
☐ Start & Finish Time:  
☐ Daily log completed by:

**Project Conditions**

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## Daily Logs SOP

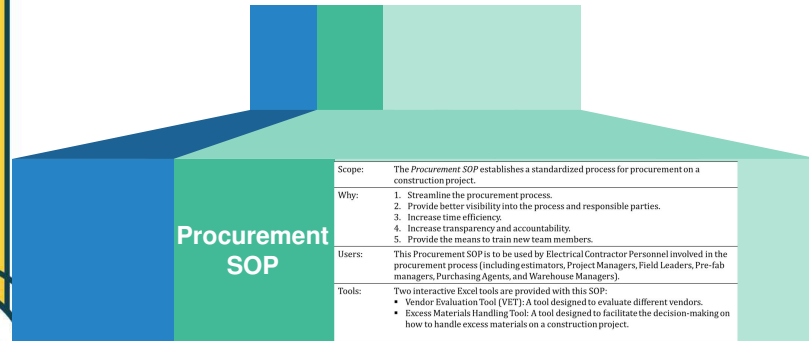
- Informational SOP – Word Document
- Fillable Excel Form
- Fillable PDF Form

The screenshots show three versions of the Daily Log SOP form: a Word document, an Excel form, and a PDF form. Each form includes sections for Project Information, Project Conditions, and a table for Daily Log entries.

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# Procurement SOP

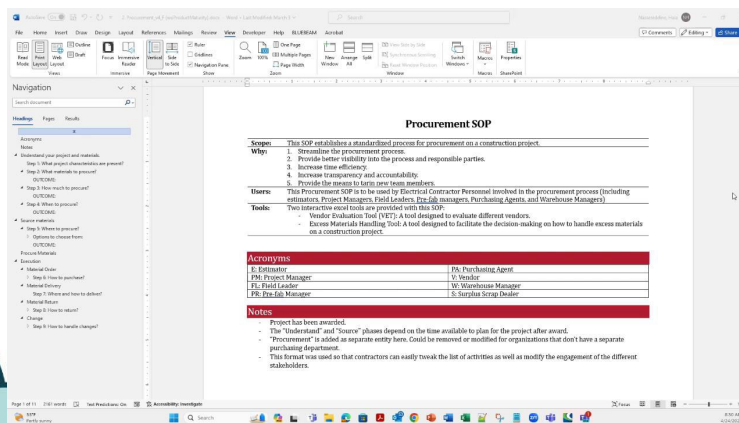


# Procurement SOP

- Informational SOP – Word Document
- Vendor Evaluation Tool (VET) – Excel Tool
- Excess Materials Handling Tool – Excel Tool



# Procurement SOP



# Vendor Evaluation Tool

[illegible]



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# Vendor Evaluation Tool

| QUALIFICATIONS |                            | Assessment Level |                       |                  |                    |                 | Weight               |
|----------------|----------------------------|------------------|-----------------------|------------------|--------------------|-----------------|----------------------|
| Weight         | Factor                     | Level 0          | Level 1               | Level 2          | Level 3            | Level 4         | Level 5              |
| 20.0%          | Past Experience            | No Information   | Very Dissatisfied     | Dissatisfied     | Neutral            | Satisfied       | Very Satisfied       |
| 20.0%          | Reliability                | No Information   | Very Unreliable       | Unreliable       | Neutral            | Reliable        | Very Reliable        |
| 20.0%          | Reputation in the Industry | No Information   | Very Poor Reputation  | Poor Reputation  | Neutral Reputation | Good Reputation | Excellent Reputation |
| 20.0%          | Geographic Coverage        | No Information   | Very Limited Coverage | Limited Coverage | Adequate Coverage  | Good Coverage   | Excellent Coverage   |

**NOTE: Total Sum of Weights must be equal to 100%.**

| SERVICES |   | Assessment Level      |                                      |                                       |         |         | Weight                                    |
|----------|---|-----------------------|--------------------------------------|---------------------------------------|---------|---------|---|
| Weight   | Factor  | Level 0               | Level 1                              | Level 2                               | Level 3 | Level 4 | Level 5                                   |
| 10.0%    | Storage   Space                               | Not Needed/Requires d | No storage Services Provided         | Limited Amount of Storage             |         |         | Adequate Amount of Storage                |
| 10.0%    | Storage   Cost                                | Not Needed/Requires d | No storage Services Provided         | Expensive                             |         |         | Cost Effective                            |
| 10.0%    | Delivery                                      | Not Needed/Requires d | Significantly Delayed                | Occasionally Delayed                  |         |         | Consistently on Time                      |
| 10.0%    | Kitting & Shaping                             | Not Needed/Requires d | No Kitting/Shaping Services Provided | Basic Kitting/Shaping                 |         |         | Advanced Kitting/Shaping                  |
| 10.0%    | Price Competitiveness                         | Non-Decision Factor   | Always uncompetitive                 | Rarely Competitive                    |         |         | Very Competitive                          |
| 10.0%    | Materials Management System   platform        | Not Needed/Requires d | No MMS used                          | Compatible/Integrates with Contractor |         |         | Compatible/Integrates with Contractor     |
| 10.0%    | Materials Management System   User Experience | Non-Decision Factor   | No MMS used                          | Not very user-friendly                |         |         | User-friendly                             |
| 10.0%    | Extended Warranties   Manufacturer            | Non-Decision Factor   | Not Offered                          | Minimal Extension                     |         |         | Optimal Extension                         |
| 10.0%    | Extended Warranties   Distribution            | Non-Decision Factor   | Not Offered                          | Partial on-site Manufacturer Warranty |         |         | Additional offer to Manufacturer Warranty |
| 10.0%    | Early Payment/Cash Discounts                  | Non-Decision Factor   | Not Offered                          | Standard Industry Terms               |         |         | Customer-Specific Terms                   |
| 10.0%    | On-Site Material Handling                     | Not Needed/Requires d | Not Offered                          | Basic Services                        |         |         | Advanced/Full range of services           |

**NOTE: Total Sum of Weights must be equal to 100%.**

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# Vendor Evaluation Tool

| QUALIFICATIONS |                            | Assessment Level |                       |                  |                    |                 | Weight               |
|----------------|----------------------------|------------------|-----------------------|------------------|--------------------|-----------------|----------------------|
| Weight         | Factor                     | Level 0          | Level 1               | Level 2          | Level 3            | Level 4         | Level 5              |
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**NOTE: Total Sum of Weights must be equal to 100%.**

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# Vendor Evaluation Tool - Database

| DATABASE |                           |                     | QUALIFICATIONS |                 |             |                            |                     | SERVICES        |                |          |                   |                       |  |   |                                    |                                    |                              |                           |
|----------|---------------------------|---------------------|----------------|-----------------|-------------|----------------------------|---------------------|-----------------|----------------|----------|-------------------|-----------------------|--|---|------------------------------------|------------------------------------|------------------------------|---------------------------|
| Vendor   | Total Qualification Score | Total Service Score | Total Score    | Past Experience | Reliability | Reputation in the Industry | Geographic Coverage | Storage   Space | Storage   Cost | Delivery | Kitting & Shaping | Price Competitiveness | Materials Management System   platform | Materials Management System   User Experience | Extended Warranties   Manufacturer | Extended Warranties   Distribution | Early Payment/Cash Discounts | On-Site Material Handling |
| Vendor 1 | 100%                      | 100%                | 100%           | 100%            | 100%        | 100%                       | 100%                | 100%            | 100%           | 100%     | 100%              | 100%                  | 100%                                   | 100%  | 100%                               | 100%                               | 100%                         | 100%                      |
| Vendor 2 | 100%                      | 100%                | 100%           | 100%            | 100%        | 100%                       | 100%                | 100%            | 100%           | 100%     | 100%              | 100%                  | 100%                                   | 100%  | 100%                               | 100%                               | 100%                         | 100%                      |
| Vendor 3 | 100%                      | 100%                | 100%           | 100%            | 100%        | 100%                       | 100%                | 100%            | 100%           | 100%     | 100%              | 100%                  | 100%                                   | 100%  | 100%                               | 100%                               | 100%                         | 100%                      |

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# SOPs for 5 Essential Processes

01

02

03

04

05

Daily Logs SOP

Procurement SOP

Lookahead Schedules SOP

Change and Additional Tickets SOP

Document Management SOP



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# SOP for Construction Activities

Construction Activity SOP – The *ITTEM* Template

|        |  |
|--------|--|
| Scope: | Provide a description of the scope   |
| Why:   | 1. Add why this SOP is important<br>2. Add why this SOP is important<br>3. Add why this SOP is important |
| Users: | Define SOP users.  |

I – Information

<What *Information* is needed to complete the activity?>

T – Team

<Who is the on *Team*? Identify all stakeholders that are involved with the activity?>

T – Tools

<What *Tools* are needed to complete the activity?>

E – Equipment

<What *Equipment* is needed to complete the activity?>

M – Materials

<What *Materials* and *Material Management Activities* are needed?>

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# SOP-PRO Tool

- The SOP-Production Tool is designed to:
  - Streamline the creation of SOPs
  - Centralize SOPs

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# SOP-PRO Tool

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# Final Report

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## Key Takeaways

Build ownership – adopt a bottom-up approach.

Identify key areas for SOPs – prioritize high-risk areas and gradually expand.

Keep SOPs simple, clear, and accessible. SOPs need to be right!

Make SOPs part of your culture.

Make SOPs accessible.

Continuously review and improve.

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## Please complete the Online Evaluation

<https://www.surveymonkey.com/r/NECA2024SanDiegoConvention>

Q&A

THANK YOU!

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