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# SPCC Plan Update

**By Jerry G. Crawford P.E.**

Many of you are concerned about the approaching deadline for implementing your Spill Prevention, Control and Countermeasures (SPCC) Plans. This article is to update you on recent intended and proposed changes in the SPCC regulations.

On December 26, 2006, the EPA finalized an important change to the SPCC regulations that deals with the SPCC Plans, 40 CFR Part 112. The EPA added a definition for 'Oil-Filled Operational Equipment', which is defined as "Equipment which includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-Filled Operational Equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process)." Typical substation equipment will fall under this definition. This revision/addition to

the regulations now gives the EPA the ability to make changes to the regulations that only affect Oil-Filled Operational Equipment.

The EPA also on December 26, 2006 proposed to extend the dates by which facilities must prepare or amend SPCC Plans and implement those Plans. On May 10, 2007 EPA Administrator Steve Johnson signed the final rule changing the date from October 31, 2007 to July 1, 2009. The EPA has stated the reason for the change is based on further SPCC regulatory revisions that are being considered and expect to be proposed during 2007.

The EPA has not provided any insight as to the changes that they are considering for 2007, but with the approval of a definition for 'Oil-Filled Operational Equipment' it opens the door for revisions to the regulations as they apply to substations.

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# Recommended Work Order Inspection Procedures

Original IEEE Author: Mike Norman, KY RUS GFR

Updates by: Gary Grubbs, PE

## Introduction

Distribution staking and construction can become such a routine that quality control is often taken for granted. The Work Order Inspection (“WOI”) should be an integral part of the construction process. It is similar to an audit of the financial condition by a Certified Public Accountant (“CPA”) and as such it needs to be systematic, performed on a uniform basis by a professional engineer (“PE”), and thorough. Like the CPA audit, it should also be accountable to a third party. A good WOI procedure keeps the construction process credible and ensures quality control. It also provides the following assurances to the Rural Utility Service (“RUS”), the system management, the system Board, and the system members/owners:

- Construction conforms to RUS specifications and standards.
- Construction meets minimum requirements of the National Electrical Safety Code (“NESC”).
- Staking sheets or as-built drawings represent the construction completed and inspected.

## Regulations and Responsibilities

- ✓ CFR Title 7, Subtitle B, CHAPTER XVII, PART 1718, Subpart N, § 1718.103 ~ Requirement that the borrower plan, design and construct its electric sys-

tem according to standards and other requirements established by RUS, and if directed by the Administrator, that the borrower follow RUS planning, design and construction standards and requirements for other utility systems constructed by the borrower.

- ✓ CFR Title 7, Subtitle B, CHAPTER XVII, PART 1724, Subpart C, § 1724.32 ~ *Inspection and Certification of Work Order Construction.*
- ✓ State Statutes, as Applicable.

## Recommended Guidelines for the WOI Process

**WHO ~** Field inspections are normally performed by a PE except that a subordinate of the PE may make the inspection, provided all the following conditions are met:

- The inspection by the subordinate is satisfactory to the borrower;
- This practice is acceptable under applicable requirements of the States in which the facilities are located;
- The subordinate is experienced in making such inspections;
- The name of the person making the inspection is included in the certification;
- The licensed engineer signs such certification

which appears on the inventory of work orders.

It is often useful and educational for a representative of construction management to observe and assist with the inspections. Respect for the WOI is crucial and can be maintained and further strengthened by this participation.

RUS states that the “system general manager or CEO shall not be the WOI engineer.”

**HOW OFTEN ~** This depends on the size of the system and the amount of construction activity involved. The recommendation for a busy system is monthly, especially during peak construction periods. The recommendation for a smaller system with minimal activity is quarterly. In any case, the borrower shall ensure that all field inspection and related services are performed within 6 months of the completion of construction.

**JOB SELECTIONS ~** Construction to be inspected should cover worked performed by all construction crews, geographical areas and types of construction specific to the system. For the WOI program to be credible and objective, inspections must be selected on a “random” basis with the total jobs inspected large enough in quantity to meet the aforementioned criteria. The principle of the WOI program should not be based on convenience or quantity reviewed.

*(Continued on page 4)*

## TVPPA Honors Ron Hutchins



*Ron Hutchins, left, receiving award from Joe Satterfield*

*photo courtesy of TVPPA*

At the TVPPA Annual Conference held in Louisville, Kentucky in May, Ron Hutchins was presented with TVPPA's highest award, the Richard C. Crawford Distinguished Service Award. Among the criteria for this award are leadership in TVPPA and in other Valley utility associations, service contributions to consumer-owned power, recognition by peers, betterment of area communities, and unusual devotion to duty and service above self. Ron served several terms on the TVPPA Board, including the office of Chairman, twice. His service on various TVPPA committees and sub-committees goes back many years, especially in Rates and Contracts and in Power Supply. He is active in his district power distributors association and served as President. Ron is the General Manager of the North Georgia EMC and started his career at P&D as an engineering coop and then joined the firm as an electrical engineer upon graduation. Ron, in attendance with his wife, Karen, and Board Members, was honored by the association for his contributions to the industry and community. **Congratulations Ron!**

## P&D Substation Design Seminar for Training Distributor Employees

In response to a request from our substation clients, P&D plans to conduct a Substation Design Seminar this fall structured to provide specialized training to increase the knowledge level of distributor employees who have responsibility for substations. The first seminar will be structured as a learning experience for participants with a medium knowledge level of substation operations. The seminar agenda is currently being developed utilizing input provided by many distributors who use our substation services. We will soon be providing our clients with the specifics of this seminar, along with the registration details for those who wish to participate. The seminar will be held during the fall in the conference facilities in P&D's Norcross, GA offices.

## Electrical Distribution Advanced Staking School

Patterson & Dewar is conducting an Advanced Staking School at the Holiday Inn Destin in Florida, July 16-19. Participants will learn the fundamental principles of topics such as: Heavy Conductor Staking and Multi-Phase Design, Three-Phase Transformer Banking and Commercial Applications, Lightning and Grounding, Large Development Layouts, Computerized Staking and GIS Mapping as well as Distribution Line Switching. This course is focused on applying technical information with common sense ideas to produce a reliable design that is economical. The cost of the course is \$595.00 per attendee and the registration form can be found at [www.pd-engineers.com](http://www.pd-engineers.com). If you cannot make this one, watch the newsletter for future schools-one may be coming to your area!

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**QUANTITY ~** In regard to the quantity of inspections, the percentage method is not recommended. Many systems routinely inspect 10 to 15% of all construction; however, the quantity of inspections should be based on the results obtained. In other words, when problems are discovered, the number of inspections should increase. The overall quantity must be such that the PE can certify that “sufficient inspection has been made of the construction reported by this inventory to give me reasonable assurance that the construction complies with applicable specifications and standards and meets appropriate code requirements as to strength and safety”. It is also recommended that all major work plan construction be inspected.

**DOCUMENTATION ~** This process starts with the staking sheet, which should include a drawing of the construction and its geographical location. An inspection form is recommended; it establishes a routine format that is systematic, professional, and that can be filed and read by anyone. The form should include the date, the work order number, and enough space for several lines of comments. Other information which might be appropriate to include is the weather conditions, time, date, person(s) staked by, crew(s) built by, and a brief description of the project.

RUS requires that the original staking sheet be initialed and dated by the approved individual conducting the inspection. Attaching the staking sheet to the inspection form is also recommended. Filing the documentation so it can easily be found is an obvious step, but one that is often overlooked. It is also acceptable to put inspection comments on the back of the staking sheet following the same general aforementioned format (staking sheets can be pre-printed with a WOI form included on the reverse side). The comments section should be specific to each inspection; however, generic comments can be made elsewhere for general distribution.

The above methods can be incorporated into an electronic format to make use of evolving technologies such as computerized staking and mapping, GPS and digital photography.

**FOLLOW-UP ~** Again, minimizing paperwork is recommended. Instructions for corrections can be in the same inspection comments, especially if they involve a safety code violation. The simplest follow-up procedure is to initial and date corrections on the same inspection form. The PE should not sign the certification or the

staking sheet, and the inspection form should not be filed, until the violation/deficiency has been corrected.

Follow-up documentation that can be verified by a third party is crucial to the integrity of the system and should be in the same file. Distribution of copies will vary depending on individual system structure, but should include the engineering superintendent, construction superintendent and manager/CEO.

Re-inspect all safety code violations, and occasionally, re-inspect other deficiencies at random.

**FINAL REPORT ~** The results of the inspections should be reported in writing to the manager/CEO so that he/she is included in the process. The manager/CEO is an integral part of the process and is ultimately responsible and accountable for its success. Again, a copy should go into the WOI files.

**CERTIFICATION ~** The following certification should appear on all RUS 219 inventories of work orders:

*“I hereby certify that sufficient inspection has been made of the construction reported by this inventory to give me reasonable assurance that the construction complies with applicable specifications and standards and meets appropriate code requirements as to strength and safety. This certification is in accordance with acceptable engineering practice.”*

A certification should also include the name of the inspector, name of the firm, signature of the licensed engineer, the engineer's State license number, and the date of signature.

**NOTE: Part 2 entitled “Recommended Work Order Inspection Topics” can be viewed and/or downloaded at P&D Engineers, Inc. web site:**

[www.pd-engineers.com](http://www.pd-engineers.com)