



United Cleanup Oak Ridge LLC

OWNER: Engineering	PPD-DE-1046	REVISION: 0
SUBJECT MATTER AREA: PE Stamping/Sealing	PREPARER: John Huber	Page 1 of 7
PROCESS/PROGRAM DESCRIPTION	CONCURRENCE/DATE: Victoria Holt 5/6/24 [Approval Signature on File]	
TITLE: STAMPING/SEALING OF ENGINEERING DOCUMENTS PROGRAM DESCRIPTION	APPROVED BY/DATE: John Huber 4/30/24 [Approval Signature on File]	
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This document is approved for public release per review by:
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PURPOSE This document articulates the United Cleanup Company LLC (UCOR) program for certification and sealing (stamping) of engineering documents by a registered professional engineer.

SCOPE This program description applies to engineering organizations within or supporting UCOR, as well as all entities performing work pursuant to UCOR-issued subcontracts (including UCOR affiliates).

EXPECTATIONS AND STRATEGY The requirements for the use of a seal (stamp) by registered professional engineers in the state of Tennessee is set forth in Tennessee Code-Annotated (T.C.A.) Title 62, Chapter 2 and the Rules and Regulations of the Tennessee Board of Architectural and Engineering Examiners, Rule 0120.

UCOR, as a contractor to the U.S. Department of Energy (DOE) performing work on the Oak Ridge Site, is not subject to state regulations as it applies to the certification and sealing of engineering documents.

There are instances (listed in the “Requirements” section) where UCOR documents will be required to be stamped by a registered professional engineer that are derived from sources other than Title 62, Chapter 2. This program is intended to support the process for applying such approvals to documents while protecting the licensure of the engineer and the integrity of the stamp.

As used herein, “registered professional engineer” (RPE) refers to a professional engineer registered in the state of Tennessee pursuant to T.C.A. 62, Chapter 2.

As used herein, “sealing” refers to the act of an RPE applying their Professional Engineer seal (or stamp), signing, and dating a document. The terms “seal” and “stamp” are used interchangeably in this document and UCOR procedures.

As used herein, “Design Agency” refers to external engineering service providers (e.g., Architect-Engineering [A-E] firms) as well as entities originating engineering documents in-house.

REQUIREMENTS In general, the sealing of documents prepared by or for UCOR for engineering documents within the scope of the Oak Ridge government reservation is not required.

However, special circumstances may require that certain documents be sealed, including the following:

- Shoring Designs: Occupational Safety and Health Administration (OSHA) requires that excavations greater than 20 feet deep be engineered and stamped by a licensed engineer <29 CFR 1926.652(b)(4)>.
- New Facility Designs: Fire Protection Design provided by offsite Contractors shall be prepared by an individual possessing Certification in Engineering Technologies (National Institute for Certification in Engineering Technologies [NICET]) Level III/IV Fire Alarm Designer or a Registered Professional Fire Protection Engineer.

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- Engineering documents related to Certification of Resource Conservation and Recovery Act of 1976 (RCRA) modification and/or closure. For example, RCRA Permit TNHW-145 requires RPE signature of a letter stating the facility has been constructed or modified in compliance with the permit. For closure, an RPE certifies executed in accordance with the specification of the approved closure plan. <40 CFR 264.115>
- Certain technical data, in accordance with 40 Code of Federal Regulations (CFR) Part 270.14 (a), such as design drawings, specifications, and engineering studies, shall be certified by an RPE.
- Spill Prevention Control and Countermeasures (SPCC) Plans and their technical amendments (PPD-EC-1747, *Environmental Compliance Program*). (Obtain concurrence from Environmental Compliance prior to sealing.)

For UCOR affiliates (i.e., Amentum, Jacobs, and Honeywell) and Subcontractors, the same RPE sealing policies/guidelines that apply to UCOR are flowed down via affiliate agreements or contract terms and conditions.

It should be noted that RPE sealed records increase the administrative complexity and timescales associated with the release and revision of such documents. The need to seal/stamp documents by an RPE must be identified early in the design process, preferably at or before the conceptual design stage.

For environmental permit-related documents, UCOR Environmental Compliance must be consulted.

When subcontracting out the design, the requirement for sealing/stamping must be documented in the Statement of Work.

General Sealing Requirements

When sealing is required, documents shall be sealed by an engineer, registered in the state of Tennessee, who prepared or who was in responsible charge of the preparation of the work.

Exceptions to this policy are allowed when:

- Plant or equipment is manufactured in another U.S. jurisdiction (i.e., state, territory, or District of Columbia) for UCOR and the documents requiring certification are sealed by an RPE licensed in the state of manufacture who was in responsible charge of the preparation of the work.
- The work requiring certification is sealed by an RPE licensed in a state in which the RPE could obtain registration in the State of Tennessee via comity, and the RPE in responsible charge of the preparation of the work.

The RPEs must not seal documents if they did not prepare or were not in responsible charge of the preparation of the work, are not satisfied with the technical adequacy, or if they are not technically qualified in the discipline of the work.

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When sealing an engineering document, the RPE accepts responsibility for the adequacy of the design, including verification of the design input, even when the design input is developed by a different organization or a different Design Agency. In these instances, the RPE must ensure the design input has been accepted by an engineer competent to evaluate its adequacy.

Once satisfied, the RPE seals the required pages and/or drawing sheets in accordance with this program.

All documents sealed for UCOR shall include the Chief Engineer and the Manager of Central Engineering on distribution.

Specific Stamping Requirements

Only the originals of completed documents are sealed by the RPE(s) who prepared or who had responsible charge over the preparation of the work including:

- All original sheets of any bound or unbound set of working drawings or plans; original sheets shall include tracings or other reproducible sheets;
- The cover or index page of specifications, datasheets, studies, reports, or other documents.

In circumstances where the RPE is no longer assigned to a project (such as attrition, reassignment, or contract closure), and the design is incomplete, the successor RPE must assume full ownership (responsible charge) of the design prior to sealing. This assumption of responsible charge should be via thorough familiarization of the related design bases and resulting output.

Presentation documents (renderings and drawings used to communicate conceptual information only) need not be stamped. Preliminary documents, i.e., documents not considered final but released or distributed by the RPE prior to finalization, must be clearly identified as “preliminary” or contain such wording so it may be differentiated from a final document.

Applying Seals to Documents

A rubber stamp is typically used to seal documents unless an impression type seal is specifically required.

Engineering seals may be digitized, scanned, or electronically reproduced. The electronic seals/stamps can be placed on or in plans or documents in either electronic or hard copy form. The electronic seals/stamps must conform to the design specified in Rule 0120-02-.08 - Seals.

An electronic seal/stamp may be embedded in an electronic document as part of a template, drawing border, or cover sheet. The RPE may authorize another individual (such as a drafter, designer, technician, etc.) to place the seal/stamp on or in an electronic document.

When signing stamped documents, the RPE shall superimpose their signature (not a rubber stamp) and date of signature across the face and beyond the circumference of the seal.

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When used, electronic signatures and dates of signature shall be placed either across the face and beyond the circumference of the seal or adjacent to the seal.

Documents that are signed using a digital signature must have an electronic authentication process attached to or logically associated with the electronic document. The digital signature must be:

1. Unique to the individual using it;
2. Capable of verification;
3. Under the sole control of the individual using it; and
4. Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

Adobe certificate-based signatures are acceptable.

Revisions to Sealed Documents

Previously sealed documents that require revision should only be resealed when required to be sealed by this document. The Manager of Central Engineering or Project Engineer responsible for the document assures the change meets the requirements for document sealing.

If the design is already stamped by a previous RPE, and revision and sealing is necessary, a successor RPE may prepare and seal addenda sheets or document and seal changes to the original sheets. For revisions to completed work (that requires sealing), the successor RPE is required to be in responsible charge of the scope related to the change (i.e., not necessarily the entire document) and shall so state the applicable scope in the form of textual description in the vicinity of their seal.

The RPE who initiates a change to an issued and sealed design, assumes the responsibility for the design impacted by the change, and should therefore verify with the original designer, when practicable and to the extent necessary, that those changes will not impact the portions that have not changed.

For revisions to sealed documents that do not or no longer require sealing, the seal shall be removed from the document at the next revision.

Rules of Conduct and Practice of UCOR Registered Professional Engineers

UCOR recognizes that all RPEs licensed in the State of Tennessee are bound by the Rules of Professional Conduct of the Tennessee Board of Architectural and Engineering Examiners Chapter 0120-02. The rules are applicable to all registrants. UCOR RPEs are encouraged to review the current version of Chapter 0120-02 located at:

<https://publications.tnsosfiles.com/rules/0120/0120.htm>, *UCOR Engineering Code of Conduct for RPEs*

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While T.C.A Title 62 Chapter 2 and Rule 0120-02 is particularly binding to all Tennessee State RPEs in the performance of engineering duties, the subset identified in Section D of this program description is derived from the code and is applicable to the conduct of all UCOR RPEs. Source requirements are:

- 29 CFR 1926.652(b)(4), OSHA – Requirements for Protective Systems
- Tennessee Code-Annotated (T.C.A.), Title 62, Chapter 2, Architects, Engineers, Landscape Architects and Interior Designers
- Rules & Regulations of the State of Tennessee Title 0120, Architectural Engineering Examiners
- 40 CFR 264.115, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, Certification of Closure
- PPD-EC-1747, *Environmental Compliance Program*

ROLES AND RESPONSIBILITIES

A. UCOR Chief Engineer

1. The UCOR Chief Engineer is responsible for determining whether and how the provisions of T.C.A. Title 62, Chapter 2 and Rule 0120 apply and delineating the specific requirements for professional engineering certification and sealing of documents produced by UCOR and its subcontractors.

B. UCOR Manager of Central Engineering

1. The UCOR Manager of Central Engineering stays apprised of the Laws and Rules for Architects and Engineers in the State of Tennessee.
2. The UCOR Manager of Central Engineering is responsible for keeping the Chief Engineer informed of engineering practices not consistent with T.C.A. Title 62, Chapter 2 and Rule 0120.
3. The UCOR Manager of Central Engineering, in conjunction with the responsible Project Engineer, is responsible for determining the need for RPE certifications and document sealing based on a review of the modification/task/project scope, associated regulatory requirements and other contributing factors.

C. UCOR Designated Project Engineer

1. The UCOR Project Engineer determines which documents for a given project will require stamping/sealing by an RPE. The engineer uses the requirements in this program plan to make this determination. This determination is made prior to development of detailed design documentation.
2. The Project Engineer obtains concurrence from the Manager of Central Engineering that the stamping/sealing is required, or in the best interests of UCOR.
3. The UCOR Project Engineer ensures projects under their responsibility have RPEs assigned when required and early enough in the project such that the RPEs may establish responsible charge over the work.

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4. When RPE sealing is required, the Project Engineer works with the Design Agent responsible for the engineering scope to assign a qualified RPE to serve in responsible charge of the design work requiring certification.
5. UCOR Project Engineers are accountable to the UCOR Manager of Central Engineering for stamping/sealing of documents.

D. UCOR Registered Professional Engineers

1. UCOR RPEs whose work areas may involve stamping/sealing are responsible for maintaining the active status of their Professional Engineer license registration with the State of Tennessee.
2. UCOR RPEs shall seal only documents as required by, and in accordance with, this program.
3. UCOR RPEs must notify the Manager of Central Engineering and the applicable Project Engineer's manager whenever being asked to stamp documents originating outside of the Engineering organization (e.g., Environmental Compliance documentation).
4. UCOR RPEs shall maintain their competency by continuing their professional development.
5. UCOR RPEs are expected to strive with the skill, diligence, and judgment exercised by the prudent practitioner to achieve the goals and objectives of UCOR.
6. Prior to sealing/stamping, UCOR RPEs are expected to promptly inform engineering management of technical progress and technical changes in conditions that may affect the appropriateness or achievability of some or all of the goals and objectives of designs under their supervision.
7. UCOR RPEs shall seal only documents prepared by them or under their responsible charge (direct supervision).
8. UCOR RPEs must notify engineering management whenever they are being asked to perform work outside of their competency or knowledge of applicable codes and regulations.
9. UCOR RPEs shall notify engineering management upon self-identification of errors in any released documents they have originated, checked, or verified.