

A low-angle, upward-looking shot of a modern glass skyscraper with a curved facade, reflecting the sky. The building's structure is composed of dark frames and large glass panels. The image is used as a background for a presentation slide.

Is a New Approach Needed for ESMS Training?

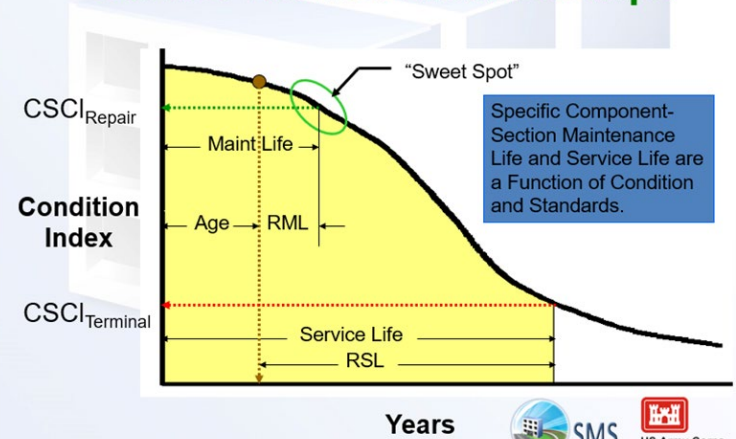
Presenters Kurt Sorensen
Paul Schowalter
DIGON Systems

The background features a dark grey sky with several thin, dark lines intersecting to form a triangular structure, resembling a tower or antenna. A bright green horizontal line is positioned near the top right. The lower portion of the image is dominated by a large green diagonal shape, with a smaller blue shape at the bottom right corner.

Why are we here?

15 Years of BUILDER SMS Training

Recall, Condition/Maintenance Life/RML/ Service Life/RSL Relationships



Source: D.R. Uzarski, Ph.D., P.E.



But are they effective?

Are agencies confident that employees and consultants are well-trained?

The discussion is about how agencies are planning to support ESMS knowledge needs.



Presentation Flow | Objectives

- » Classroom Training Events
- » Static Training Guides, Process Documentation,
& User Guides
- » Training Videos
- » Learning Management System (LMS)
- » Online Knowledge Management

Classroom Training Events



- **Are you using classroom training?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Have you found virtual training more or less useful compared to in-person training?**
- **Do you have a plan for ESMS classroom events?**

Static Training Guides, Process Documentation, & User Guides

USCG Training Guide



Sustainment Management System

United States Coast Guard BUILDER™ SMS Inventory and Assessment Guide

INTRODUCTION
SAFETY AND PREPARATION
BUSINESS RULES
INVENTORY
INSPECTIONS AND REINSPECTIONS
ADDITIONAL INFORMATION
INDIVIDUAL SYSTEMS:
A10 FOUNDATIONS
A20 BASEMENT CONSTRUCTION
B10 SUPERSTRUCTURE
B20 EXTERIOR ENCLOSURE
B30 ROOFING
C10 INTERIOR CONSTRUCTION
C20 STAIRS
C30 INTERIOR FINISHES
D10 CONVEYING
D20 PLUMBING
D30 HVAC
D40 FIRE PROTECTION
D50 ELECTRICAL
E10 EQUIPMENT
F10 SPECIAL CONSTRUCTION

SEPTEMBER 2023

United States Coast Guard



B10 Superstructure

General

The B10 Superstructure system includes:

- B1070 BUILDING CONSTRUCTION

Inventory and Assessment Guidance

B107010 FRAME, FLOORS, AND ROOF

Component Type

Design	UOM	Group	Major	Inventory	Age	Sectioning
200	SF	✓	✗	✓	Building	Building
50	SF	✓	✗	✓	Building	Building
50	SF	✓	✗	✓	Building	Building

Condition Rating Examples

Green

Amber

Red

Specific Business Rules/Lessons Learned

- The subtype of Building Frame, Floors, and Roof will encompass all types of structural frame and includes all columns, beams, girders, joists, and roof and floor decks. Canopies and other open-air structures with columns and/or framing would be sectioned under B204001.
- If building frame distresses are visible, provide a direct condition rating and do not age-base the Section.
- If a building is a pre-engineered metal building, use the PEMB subtype.
- If a building has exterior bearing walls holding up a roof without any other visible support, use the Roof Superstructure subtype.
- Use the total square footage of the building for the quantity.

Section Names

- If the superstructure is all from one year, the Section Name should be N/A regardless of the number of floors in the building.

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Static Training Guides, Process Documentation, & User Guides

NOAA Training Guide



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Design	UOM	Group	Major	Inventory	Age	Sectioning
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Section Names

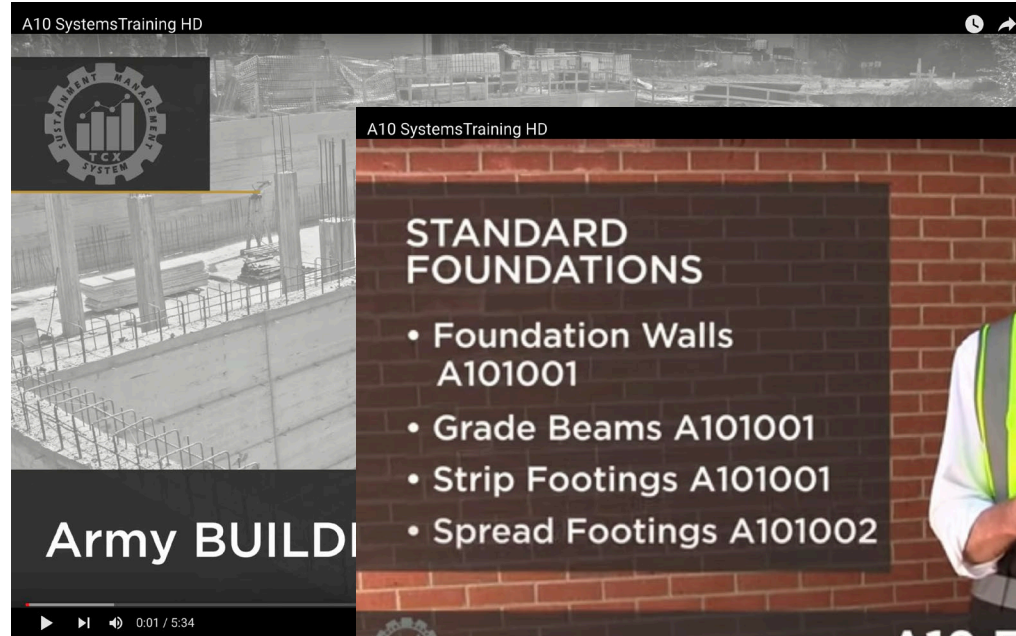
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- **Are you using static documents?**
- **Are they effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS documentation?**

Training Videos

Army Reassessment



Training Videos

USCG
Training

USCG 2 Working In BUILDER

U.S. Department of Homeland Security
United States Coast Guard

USCG 2 Working In BUILDER

LOW RISK OF FAILURE		MEDIUM RISK OF FAILURE		HIGH RISK OF FAILURE	
CI 100	GREEN + New. No action needed.	CI 80	AMBER + Moderate degradation or loss of reliability. Minor repair needed.	CI 50	RED + Severe degradation or loss of reliability. Rehabilitation needed.
CI 95	GREEN Slight degradation or loss of reliability. Preventative maintenance needed.	CI 71	AMBER Significant degradation or loss of reliability. Moderate repair needed.	CI 30	RED Total degradation or loss of reliability. Partial replacement needed.
CI 88	GREEN - Minor degradation or loss of reliability. Corrective maintenance needed.	CI 61	AMBER - Major degradation or loss of reliability. Major repair needed.	CI 10	RED - Inoperable. Replacement needed.

WORKING IN BUILDER

- **Are you using videos?**
- **Are they effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS training videos?**

Learning Management System (LMS)

SMS
TCX Training



The screenshot displays a web browser window with the URL `training.sms.erdcdren.mil/enrol/index.php?id=17`. The page header includes the SMS-TCX logo and navigation links for Home, Dashboard, and My courses. The main content area is titled "U.S. Army / Enrolment options" and features a large heading "U.S. Army BUILDER Required Training Enrolment options". Below this, a link "U.S. Army BUILDER Required Training" with an external link icon is visible. A yellow star icon with "U.S. ARMY" text is positioned next to a text block stating: "There are currently 3 BUILDER permission/roles available for access to U.S. Army BUILDER: Read Only, Inspection Supervisor and Work Planner. This course covers all of the required training for each level of access to U.S. Army BUILDER. Available for Self-Enrollment for registered SMS-LMS users."

training.sms.erdcdren.mil/enrol/index.php?id=17

SMS - TCX - LMS Home Dashboard My courses

U.S. Army / Enrolment options

U.S. Army BUILDER Required Training Enrolment options

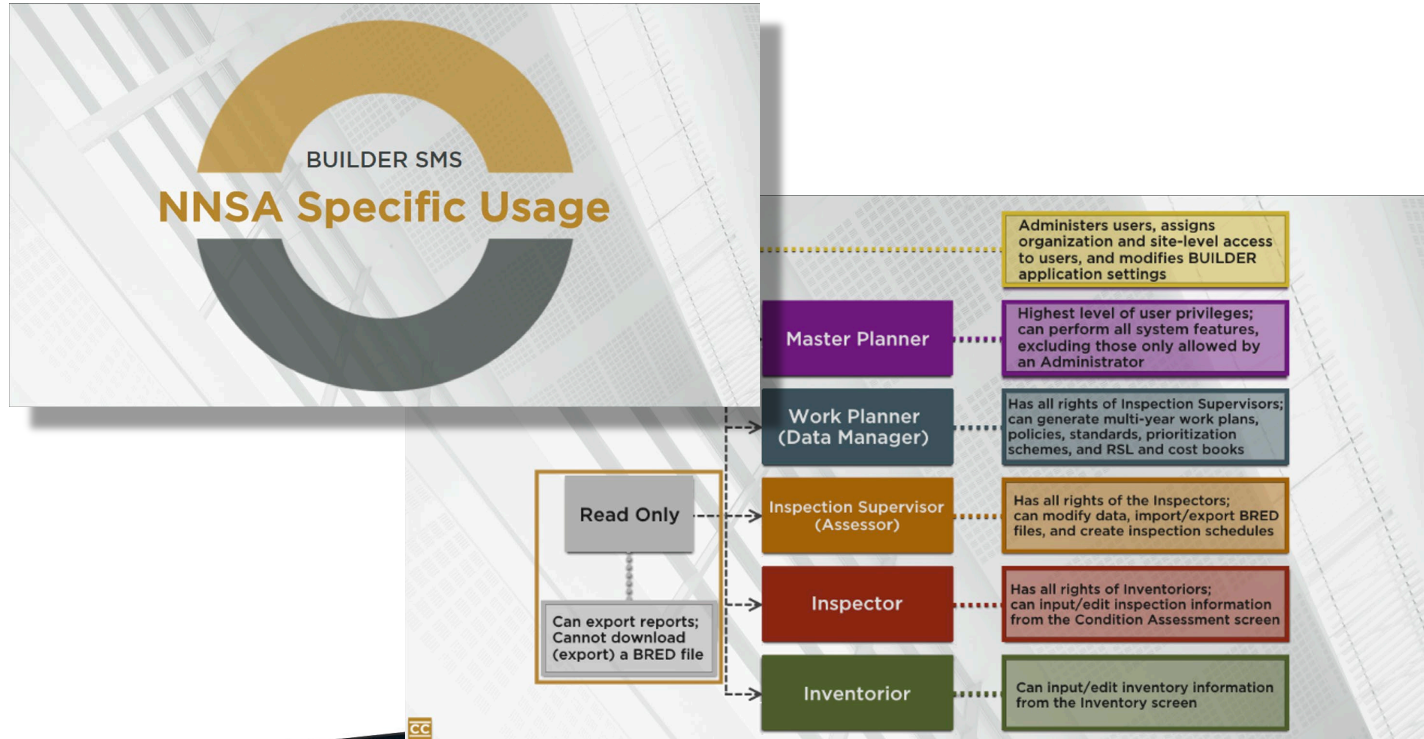
[U.S. Army BUILDER Required Training](#) ➔

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Learning Management System (LMS)

NNSA

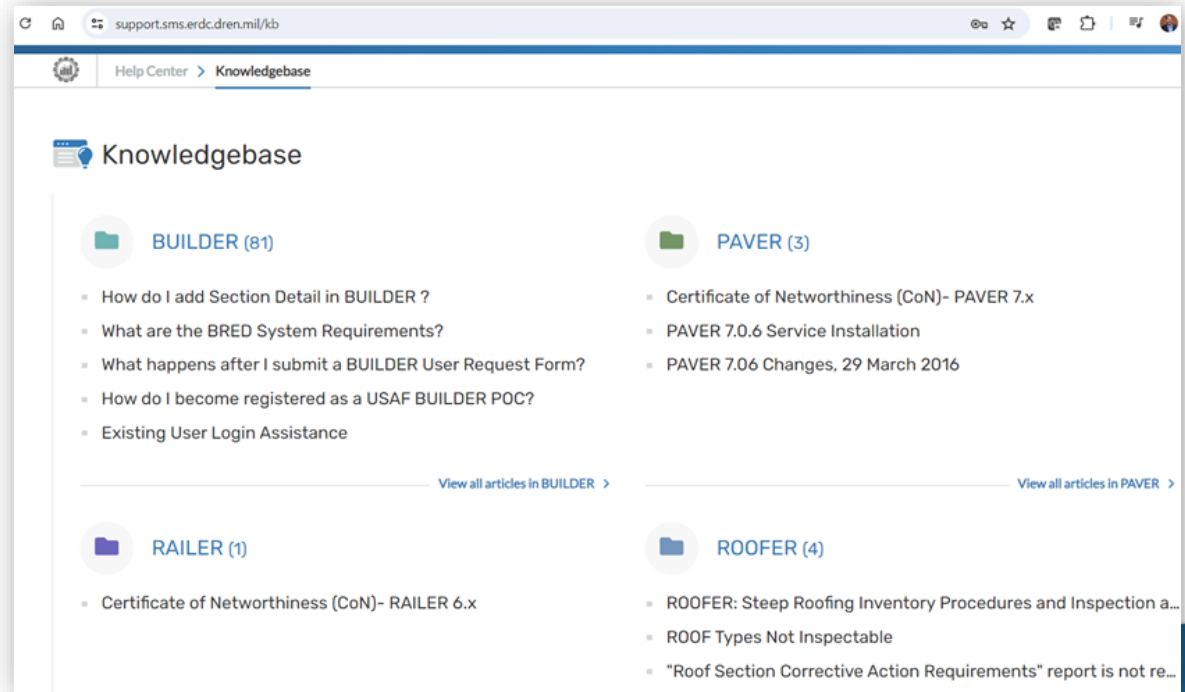
Online
Training



- **Are you using an LMS?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for an ESMS LMS?**

Knowledge Management System

SMS TCX Support Site



Knowledge Management System

NNSA Online Training

EXAMPLE

Let's say you have a 17-year-old water heater. That is 170% of its 10-year Design Life. You inspect it and give it a Green Minus rating, which is a CI of 88. If the Estimated box is not checked, BUILDER lowers the Current Estimated CI to 38 to account for the higher risk of failure on a Section that old.

BUILDER will then draw a new Lifecycle Curve, starting from 38.

If the Estimated box is checked, BUILDER puts more weight on your rating and keeps the CI of 88 as the Current Estimated CI, and a new Lifecycle Curve is drawn from there.

If you do not want BUILDER to make a large adjustment to the Current Estimated CI on a Section past its Design Life, you may check the Estimated box (even if you know the actual year) and BUILDER will rely more heavily on the assessor's rating.

SUMMARY

- There is an Estimated box to check if the year of a Section is unknown.
- That box changes the way BUILDER calculates the Current Estimated CI on older Sections.
- If not checked and BUILDER considers a rating too high based on age, the Current Estimated CI will be adjusted down.
- If checked, BUILDER puts more weight on the assessor's rating for the Current Estimated CI.

Effect of Estimated Checkbox
Older Section Rated Higher Than Expected

THE YEAR ESTIMATED CHECKBOX (Cont.) BUILDER™ Q&A LIBRARY 1.1

Section Name: [SELECTED] Equipment Component Sub: [SELECTED]

General Info: Section Details (S) Condition Trend Inspection History

Alternate ID: [SELECTED] Quantity: 1 EA

Driver: [SELECTED] Year Installed/Replaced: [SELECTED]

Estimated: [] Current Status: Active

Parted: []

Latest Inspection: [SELECTED] Date: [SELECTED] Type: [SELECTED]

Current Estimated Condition: [SELECTED]

Summary

Installed

Inspection

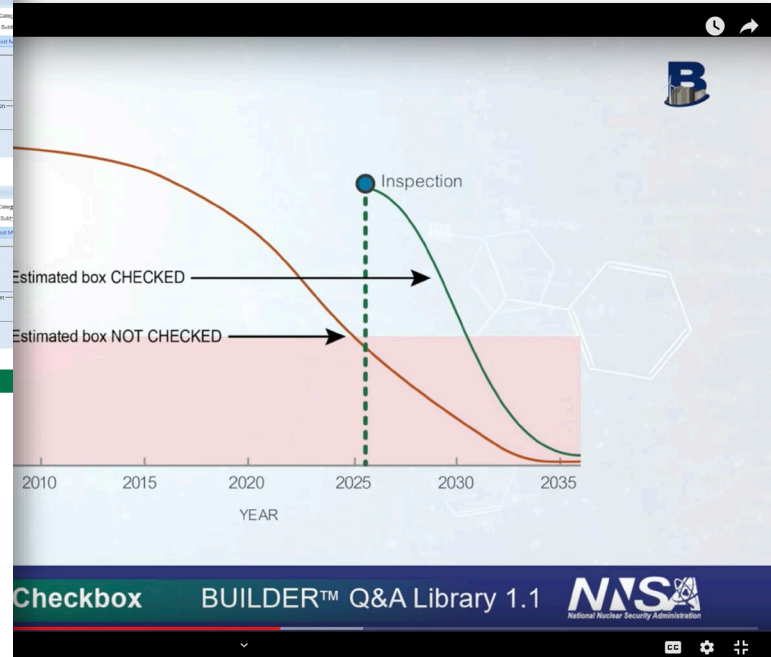
Estimated box CHECKED

Estimated box NOT CHECKED

CONDITION INDEX (CI)

YEAR

NNSA
National Nuclear Security Administration



- **Are you using knowledge management?**
- **Is it effective?**
- **Who is your primary audience?**
- **Do you want more?**
- **Do you have a plan for ESMS knowledge management?**

**Domain or
System
Specific?**



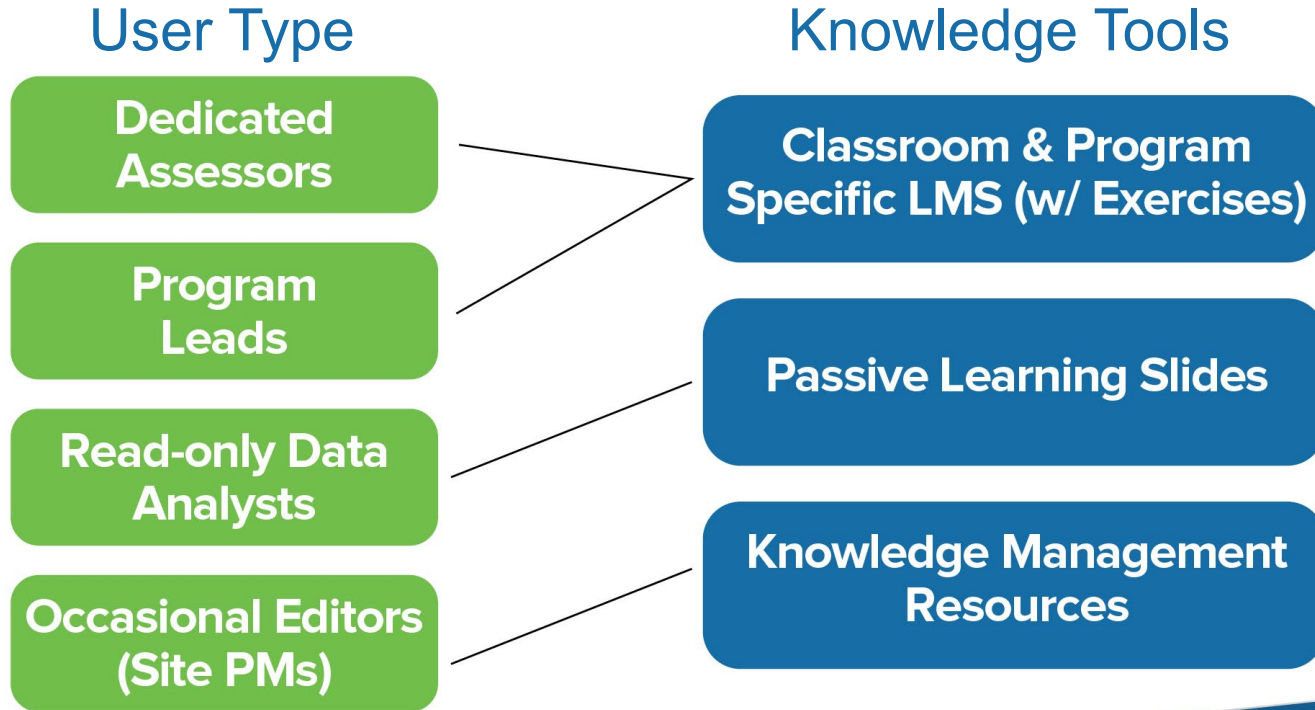
- **Do you see value in Domain-specific training?**
- **Do you see value in System-specific training?**

Certification usage in your program?



Value-based Suggestion

Conclusion: Match the tool to the need



RPAA

Real Property Asset
A S S O C I A T I O N

The core function...

of the Real Property Asset Association is to hold a single, unbiased repository for education resources, continuing education, and learning group events (SMS Summit) in one location for all tenants actively working with real property assets.



APRIL 22-24, 2025
SAN ANTONIO, TEXAS



THANK YOU

Kurt Sorensen : info@realpropertyassets.com

Paul Schowalter : paul@digonsystems.com