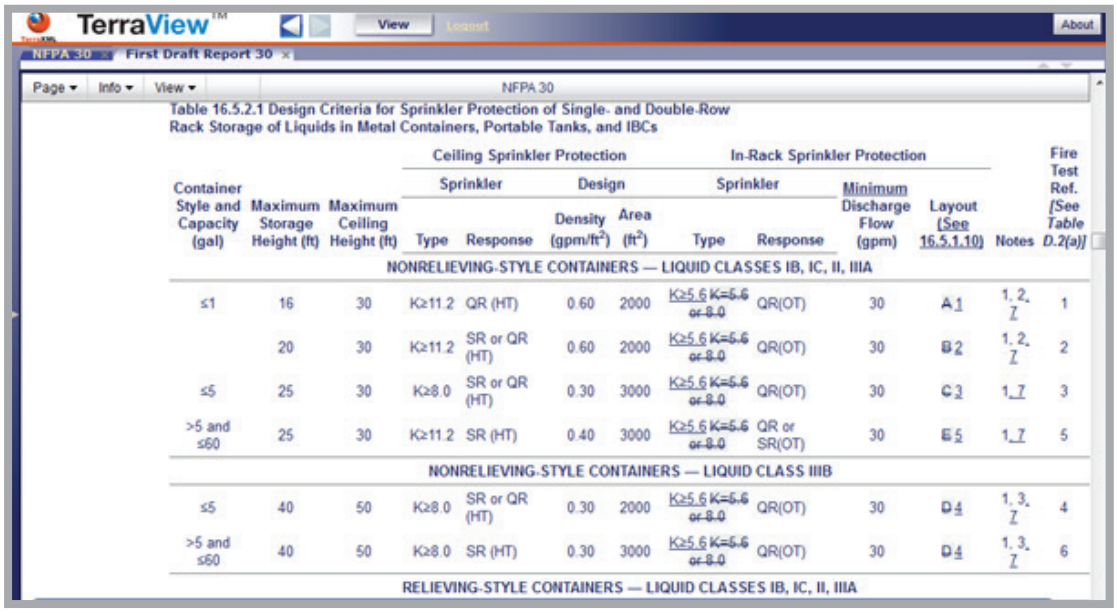
Customer Story

National Fire Protection Assn. (NFPA)

Standards Development Through Public Participation

TerraXML
INTELLIGENT OPERATIONS
THROUGH INTELLIGENT DATA

> ***With thousands of proposed changes submitted every year, ensuring timely public review, while still maintaining an active publication schedule, was daunting.***



TerraView™ View Logout About

NFPA 30 First Draft Report 30

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Table 16.5.2.1 Design Criteria for Sprinkler Protection of Single- and Double-Row Rack Storage of Liquids in Metal Containers, Portable Tanks, and IBCs

Container Style and Capacity (gal)	Maximum Storage Height (ft)	Maximum Ceiling Height (ft)	Ceiling Sprinkler Protection: Sprinkler Type	Ceiling Sprinkler Protection: Sprinkler Response	Ceiling Sprinkler Protection: Design Density (gpm/ft²)	Ceiling Sprinkler Protection: Design Area (ft²)	In-Rack Sprinkler Protection: Sprinkler Type	In-Rack Sprinkler Protection: Sprinkler Response	Minimum Discharge Flow (gpm)	Layout (See 16.5.1.10)	Notes	Fire Test Ref. (See Table D.2(a))
NONRELIEVING-STYLE CONTAINERS — LIQUID CLASSES IB, IC, II, IIIA												
≤1	16	30	K≥11.2	QR (HT)	0.60	2000	K≥5.6 ~~K=5.6 or 8.0~~	QR(OT)	30	A 1	1, 2, 7	1
	20	30	K≥11.2	SR or QR (HT)	0.60	2000	K≥5.6 ~~K=5.6 or 8.0~~	QR(OT)	30	B 2	1, 2, 7	2
≤5	25	30	K≥8.0	SR or QR (HT)	0.30	3000	K≥5.6 ~~K=5.6 or 8.0~~	QR(OT)	30	C 3	1, 7	3
>5 and ≤60	25	30	K≥11.2	SR (HT)	0.40	3000	K≥5.6 ~~K=5.6 or 8.0~~	QR or SR(OT)	30	E 5	1, 7	5
NONRELIEVING-STYLE CONTAINERS — LIQUID CLASS IIIB												
≤5	40	50	K≥8.0	SR or QR (HT)	0.30	2000	K≥5.6 ~~K=5.6 or 8.0~~	QR(OT)	30	D 4	1, 3, 7	4
>5 and ≤60	40	50	K≥8.0	SR (HT)	0.30	3000	K≥5.6 ~~K=5.6 or 8.0~~	QR(OT)	30	D 4	1, 3, 7	6
RELIEVING-STYLE CONTAINERS — LIQUID CLASSES IB, IC, II, IIIA												

NFPA Standards Shown in TerraView

Improving Safety with Active Input

The National Fire Protection Association (NFPA), is the world's leading advocate of fire prevention and public safety. NFPA develops and publishes over 300 codes and standards used worldwide by industries, trades, and governments to minimize the possibility and effects of fire and other risks to life and property.

Founded in 1896, NFPA now has over 65,000 members. In this time, NFPA has grown to be a respected leader in standards development. NFPA maintains this position by leveraging new technologies to help drive increased participation and more effective approaches in building consensus-based standards.

Currently, NFPA has over 8,000 technical committee members who volunteer to serve on over 250 Technical Committees. This commitment and engagement is founded on the belief that the NFPA Technical Committee members, combined with a robust public review, input, and comment process, are in fact the best source for improving NFPA codes and standards.

For decades, NFPA has allowed their committee membership and the public to collaborate on the development and refinement of codes and standards. Committee members and the public were free to write, fax, or email proposed changes for consideration. NFPA would then manually aggregate each proposed change for evaluation by the respective technical committee and publication for public review and comment.

While the review process was open, balanced, and fair, it had an inherent limitation: scalability. With thousands of proposed changes submitted every year, ensuring timely public review, while still maintaining an active publication schedule, was daunting. Recognizing the challenge of continuing to grow participation and engagement, NFPA proactively began exploring how to make the process better.

Driving Participation

Open web-based platforms were identified as the best solution for NFPA to both enable increased public engagement and streamline document review. From a high level, open web-based platforms enable groups of interested people to take part in the ongoing development of document content. The technology is helpful in a variety of ways because it allows:

- **Openness:** all participants can contribute equally, regardless of location
- **Balance**: diverse global perspectives yield higher quality content
- **Speed**: real-time collaboration reduces duplication and helps minimize time to complete work

> ***"Open web-based platforms were identified as the best solution for NFPA to both enable increased customer engagement and streamline document review."***

Consensus-Based Standards

NFPA is an American National Standards Institute (ANSI) accredited Standards Developer. While ANSI itself does not develop standards, it provides standards development organizations (SDOs) a neutral venue to come together and work towards common practices for standards development.

As a framework for all ANSI SDOs, ANSI helped define the American National Standards process. The hallmarks of this process include:

- Consensus on a proposed standard by a group or "consensus body" that includes representatives from materially affected and interested parties
- Broad-based public review and comment on draft standards
- Consideration of and response to comments submitted by voting members of the relevant consensus body and by public review commenters
- Incorporation of approved changes into a draft standard
- Right to appeal by any participant that believes that due process principles were not sufficiently respected during the standards development in accordance with the ANSI-accredited procedures of the standards developer

Defining a Platform

To support NFPA's ANSI accredited Standards Process, NFPA chose the TerraView software platform from TerraXML for the next generation of codes and standards development. TerraView provides XML document publishing capability necessary for electronic and print publications, as well as collaboration and consensus functionality to meet public participation, review, and comment during the standards development process.

ANSI Standards Development Process

> *NFPA Committees use TerraView to aggregate, review, and build concensus...*

Externally, NFPA participants use TerraView to provide input on standards documents, and then track proposed changes in real-time. Key elements of this process include:

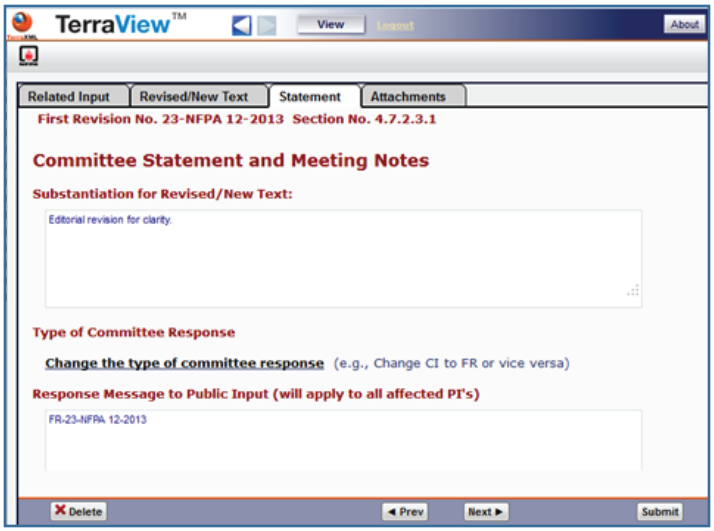
- View and edit current NFPA codes and standards from a standard web browser or mobile device
- Submit proposed changes for review
- Make real-time, tracked document changes and provide justification for proposed changes
- Attach change supporting graphics and documents
- See consolidated proposed changes made across all documents
- Review committee changes, public input, comments, and voting results of proposed changes
- Submit intent to appeal changes prior to final publication

Internally, NFPA Committees use TerraView to aggregate, review, and build consensus among proposed changes in standards documentation. Central features in this process include:

- Review and respond to public inputs and comments
- Develop and justify proposed changes in line with current standards
- Aggregate similar changes to simplify consensus
- Add comments to committee review changes
- Prepare proposed changes for vote and ballot documentation

For management of the standards development process as a whole, TerraView also offers additional features such as:

- Manage standards publications in an XML content management system
- Allow secure role-based access to all participants



Responding to User Comments in TerraView

- Administer user and public notifications
- Manage standards documents throughout their lifecycle
- Ensure enforcement of NFPA processes and regulations
- Maintain enforcement of intellectual property obligations
- Allow documents to be checked-in, -out
- Permit documents to "travel" to offline committee events
- Manage consensus of document changes
- Manage successive document revisions
- Provide archival documentation of the review process for audit and historical reference
- Support integration with third-party systems and APIs

Results

Employing an open publically accessible platform, NFPA is able to achieve two significant goals. First, by leveraging the knowledge and experience of the public and their technical committee members, NFPA is continually working to improve the overall quality of the codes and standards that are disseminated across the globe.

Second, NFPA is offsetting the ongoing manual effort required to develop and refine standards documents, which not only improves overall quality and accuracy, but provides a much faster delivery time throughout the revision process. As a result, NFPA continues to make positive steps in minimizing the possibility and effects of fire and other risks.

> ***By taking the time to understand our processes, TerraXML was able to efficiently deliver an entirely new concept for an integrated XML-based Codes and Standards system that we have now rolled out to over 8,000 users.***

Rick Sterling
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NFPA

Learn More:

National Fire Protection Association
http://www.nfpa.org

American National Standards Institute
http://www.ansi.org

TerraXML & TerraView
http://www.terraxml.com

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