Industry Standards Buyer's Guide

Standards and compliance management ensure an organization adheres to relevant regulations, standards, and ethical guidelines. Obtaining access to standards is important for all businesses. This guide outlines some considerations you may want to take when buying engineering industry standards from standards development organizations or resellers such as Nimonik.

Table Of Contents

Nimonik

What is a Standard?

A standard is a document that provides guidelines, specifications, or procedures to ensure the quality, safety, and efficiency of products, processes, or systems. Developed by governments, alliances, national standards bodies (NSB), or standards-developing organizations (SDO), standards are essential in promoting fair trade, ensuring interoperability, and maintaining public safety. While standards are voluntary in some cases, some are legally binding because they are referenced in law or incorporated by reference (IBR), with potential legal implications for non-compliance. Many contracts will cite standards, which will also become legally binding through a private contract.

History of Standards

The concept of standards dates back to ancient times when consistent measurements and quality were essential in trade and construction. Over the centuries, standards evolved from informal guidelines to structured, universally recognized documents.

In the modern era, the development of international standards has accelerated with technological advances. Today, standards govern everything from **electrical safety** to **environmental management** to testing methodologies and technical specifications for nearly every product we use – making them indispensable in our globalized and connected world. Over 93% of all products are subject to standards, and a product with many components will likely be subject to various critical engineering standards.

Creating a standard involves collaboration between industry experts, regulators, and other stakeholders, ensuring that the end product addresses industry needs and public welfare. Standards are continuously refined to keep pace with innovation, making them vital to modern industry.

Why Standards Cost Money?

Standards require significant development resources, including research, consultation with industry experts, and public reviews. Standards-developing organizations (SDOs), such as ISO, ASTM, API, and IEC, rely on standards sales to fund this process. The fees cover maintaining, updating, and distributing standards globally, ensuring they remain relevant and up-to-date.

It should be noted that standards are used broadly in this document, and the engineering document we are discussing includes guides, manuals, technical papers, and other documents that engineers and managers require to ensure compliance with their operations and products.

Standards Incorporated by Reference (IBR) into Laws and Regulations

Standards can be incorporated by reference into laws and regulations. This is a common practice as it allows the government to point to industry standards and avoid developing their own standards. There is a lot of debate about whether standards incorporated by reference into law should be freely available. For example, the United States Code of Federal Regulations has over 25,000 references to standards, and the Canadian regulations have over 6,500 references to standards.

Most standards bodies have made the standards incorporated by reference freely available in their online reading rooms. The standards are generally available via the publisher's website and can be viewed, but functionality such as copy-pasting or downloading is often disabled. You can see a list of IBR standards on ANSI's website here. Other jurisdictions have similar situations, though there are few countries where there is a free and publicly available list of standards incorporated by reference into law. Nimonik has a list of Canadian regulations that reference standards, and Nimonik will publish this list in 2025.

Learn more about this IBR situation on the NIST website here.

Nimonik

SDO, NSB, Changes and Adoptions

National Standards Bodies (NSB)

Each country has its own National Standards Body (NSB). Some NSBs create standards and also regulate organizations within their boundaries. NSBs typically represent ISO and IEC at the national level. Some NSBs include:

- AFNOR (France)
- AENOR (Spain)
- DIN (Germany)
- SIS (Sweden)
- BSI (United Kingdom)
- SAC (China)
- A full list can be found on the ISO website here (though it also includes some SDOs).

ANSI and SCC

"American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system" and is not technically an NSB.

"As a federal Crown corporation, we take our mandate from the Standards Council of Canada Act which is to promote efficient and effective voluntary standardization in Canada" and is not technically an NSB.

CEN-CENELEC (Europe)

This organization gathers European NSBs in one place to create harmonized European Norms (ENs). The national standards bodies of each country then adopt these European norms.

Standards Developing Organizations (SDOs)

Standards Developing Organizations (SDOs) are responsible for creating and maintaining standards. Some well-known SDOs include:

- **ISO (International Organization for Standardization)**: Develops international standards for various industries.
- **ASTM (American Society of Testing and Materials)**: Publish various testing-related standards.

- **IEC (International Electrotechnical Commission)**: Specializes in electrical and electronic standards.
- **CSA (Canadian Standards Association)**: Covers a wide variety of topics.
- **API (American Petroleum Institute)**: Specializes in Oil & Gas and is a critical publisher for that industry.

These organizations collaborate globally to ensure standards are comprehensive and applicable across different regions and industries.

See a full list of Nimonik's coverage on its Standards Store here.

See a full list of Nimonik's engineering standards subscription offering here.

Frequency of Revisions to Standards

Standards are regularly reviewed and revised to reflect the latest technology, safety protocols, and industry practices. **Standard Development Organizations and other publishers** follow specific review cycles, with major standards reviewed every 3 to 5 years. In some instances, a new version or a revision will be issued, which creates a new standard that should be obtained and analyzed. In other cases, a committee will reaffirm a standard, which means they do not make any changes but note that it is still a valid standard. This review process ensures that standards remain relevant and effective in addressing emerging industry challenges. By having a standards subscription, you will be notified of new versions and obtain access.

With the Nimonik Standards Store, you can subscribe to updates about standards free of charge and be notified when new versions are released. You can purchase the standard in Print, PDF, or Subscription format at that time.

Adoption of International Standards

In the interest of harmonizing regulations and promoting global trade, many national standards bodies (NSBs) and other standards developing organizations (SDOs) produce publications based on **international standards**. BSI, for example, frequently adopts **ISO standards** to create a shared technical framework for trading partners, enabling UK businesses to remain competitive on the global stage.

When an NSB or other SDO chooses to publish a standard based on another organization's work, it may fall into one of the following categories:

- An "**identical to**" (IDT) adoption means the new standard is identical to the original in wording (or an identical translation into another language) or identical in technical content with only minor editorial modifications. Identical adoptions may include annexes containing information specific to the region adopting the standard.

- A “**modified**” (MOD) adoption means the new standard contains changes from the original. This is typically done to satisfy the needs of the region that is adopting the standard. Any technical changes made from the original are usually clearly noted and explained.
- A “**not equivalent**” (NEQ) publication means that while the new standard may be based on another organization’s work, the content and structure may be changed significantly from the original, with the changes not clearly identified. This type of publication is generally not considered a true adoption.

When considering the purchase of ISO adoptions, consumers may consult the regulations of the regions where their goods or services will be used. Purchasing adoptions has both advantages and disadvantages. The primary advantage may come in the form of cost benefits, particularly when adoptions are purchased in packages.

The disadvantages of purchasing adoptions are typically related to availability. NSBs will not necessarily adopt every ISO standard. When they do, it is common for an adopted standard to take several weeks to months to appear in the marketplace after the ISO standard is published. With increasing risks linked to non-compliance, having up-to-date ISO standards is critical for many organizations. A professional from Nimonik can help you navigate your options and optimize your costs.

Nimonik

Purchasing and Restrictions

Purchasing Standards

Resellers of Industry Standards

In 2024, three primary resellers of industry standards can offer broad coverage for print, PDF, and subscription to engineering standards.

1. Accuris (formerly IHS and Techstreet) is owned by KKR Private Equity
2. Intertek Inform (formerly SAI Global) is owned by Intertek
3. Nimonik is an independent company owned and operated by engineers and scientists.

Additional options with limited standards coverage include ASTM Compass, BSB Edge, CSA Advantage, and others.

Digital Rights Management (DRM) in Standards

To protect intellectual property, many standards publishers enforce **Digital Rights Management (DRM)**. DRM restricts how documents are accessed, shared, and printed. The publishers require these restrictions. Any attempts to remove DRM are illegal and an infringement of intellectual property. DRM ensures that standards are used according to licensing agreements, preventing unauthorized distribution and maintaining the integrity of the content.

Types of DRM

Plugin-Based DRM:

- Restricts access to PDFs through tools like FileOpen or LockLizard.
- Access may expire based on time or other criteria.
- Requires installation on each device, often involving IT assistance in corporate settings.

Application Ecosystem:

- Enables online/offline access via login credentials.

- Platforms like Nimonik Standards use this model, offering seamless access through mobile apps (iOS, Android) while protecting publisher rights.

Note: Publishers generally prohibit using their intellectual property on third-party systems, file-sharing platforms, or AI tools like Large Language Models.

Pricing Models for Standards

Organizations can purchase standards through **Retail** (one-time purchases) or **Subscription** models.

Retail - One-Time Purchases:

- **Single Standard Purchase**: Ideal for individuals needing specific standards for personal use. Available in:
    - **PDF Format**: Digital copies.
    - **Print Format**: Physical copies.
    - **Bundle Discounts**: PDF and print versions of the same standard at a reduced price.
- **Multi-User Licenses**: Some publishers allow sharing PDFs among up to five users, reducing costs.

Nimonik Standards guarantees competitive pricing for all retail purchases

Subscriptions:

Many organizations opt for annual subscriptions, providing access to multiple people through an online system. The advantages of a standards subscription are numerous and are outlined here.

Pricing for subscriptions varies substantially from publisher to publisher but are generally offered in the following formats:

1. **Block Pricing**:
    - Purchase a block of 10, 20, 50, or 100 documents.
    - Flexibility for future needs, allowing document additions without requiring support staff assistance.
2. **Collections**:
    - Predefined sets of documents organized by topic.
    - Cost-effective if most documents in the collection are needed.
3. **Custom Collections**:
    - Tailored packages for unique organizational needs.
    - Ideal for small to medium businesses or large enterprises seeking cost optimization.

4. **Pre-Built Packages**:
   - Offered by various resellers, often bundling standards from multiple SDOs.
   - Typically oversized for smaller organizations, but profitable for sellers.

Factors Affecting Subscription Pricing:

1. **Simultaneous Users**:
   - The number of users who can access documents at the same time.
   - Example: A subscription to 35 API standards allowing 3 simultaneous users across 15 locations.
2. **Locations**:
   - Total number of offices or sites requiring access.
   - Pricing strictly accounts for locations, regardless of user count per site, unless pre-approved by publishers.

Maximizing Value from Standards

To optimize costs, it's critical to:

- Purchase the right standards for specific locations.
- Choose appropriate quantities based on organizational needs.
- Leverage multi-year commitments or broader access discounts offered by some SDOs.

Larger resellers (e.g. Accuris) offer collections by topic, custom collections, and pre-built packages. To help optimize costs, customers should verify that they are only paying for documents once and that they are only purchasing the documents they truly require.

Details on Simultaneous Users

Some publishers wish to limit the number of users that have access to their standards for two reasons:

1) The concept of purchasing "seats" (simultaneous users) has been around for a long time in the engineering world, particularly for CAD software, where standards are heavily used.

2) Traditionally, many engineering colleges had physical engineering libraries. Let's say they had purchased two copies of a standard in a library. That is essentially the physical equivalent of purchasing two simultaneous users — in other words, at any given time, only one person can hold a physical book in their hands.

The simultaneous user settings are not at the document level but at the SDO level. So, picture an order form configuration like this:

Company:	**ACME**			
SDO	# of Publications	# of product sets	# of Simos	# of locations
API	35	0	3	15
BSI	25	0	2	4
NEMA	0	1	2	4
ASTM	15	0	1	1

In this example, this would imply that a company is subscribing to 35 API standards and at any given time, only 3 people across 15 locations can access any of the content.

So, if a fourth person at any of the locations tries to access any API publications, they should be turned away until a seat is freed up. Therefore, it is important to properly determine the number of simultaneous users you require.

Jointly Produced Standards

Certain standards publishers collaborate to create joint standards to ensure global interoperability, leverage combined expertise, avoid redundancy, and meet the broad and complex needs of industries. Examples include select standards from CSA/ASME, ASHRAE/IES, and IPC/JEDEC. By working together, SDOs can address interdisciplinary challenges, speed up standardization, and ensure that standards are comprehensive and widely accepted. Consumers may benefit from jointly produced standards when one of the SDOs publishes a more affordable version of the same standard.

Purchasing Standards Subscriptions

When purchasing a **standards subscription**, consider the following to obtain the best value and functionality for your organization:

1. **Content Location Matrix**: Many publishers restrict access based on location, and royalties are calculated accordingly. Know which locations need specific content to control costs and avoid unnecessary licensing fees.
2. **Tailor Content to Your Needs**: Work with your partner, such as Nimonik, to determine whether your organization benefits most from standard packages, custom content, or a hybrid mix. Understanding your needs and return on investment (ROI) is key to selecting the right subscription model. Unfortunately, this is a complex process.
3. **Annual License Renewals**: Most licenses are one-year contracts, but longer agreements can be arranged. Plan for annual renewals early to ensure a sustainable long-term program that boosts efficiency and ROI. It should be noted that publishers adjust their

pricing annually and typically increase prices by 1–3%, but these changes are unpredictable.

4. **Know Your Tipping Point for Customization**: Striking the right balance between standard packages and customized content is essential. Misjudging this can lead to unnecessary costs over time.
5. **Essential Features and Updates**: Ensure your subscription includes critical features such as updates, redline, alerts, access to historical versions, and usage reporting. (Factor in any additional costs into your budget for mid-term content updates.) Nimonik includes these functionalities for free. Accuris and other resellers offer updates, redline, alerts, access to historical versions, and usage reporting functionalities under complex and customer-specific pricing structures depending upon a customer's unique needs for a cost determined on a customer-by-customer basis.
6. **Onboarding and Training**: Effective onboarding and training are crucial for user adoption. Understand how training will be rolled out and communicated for widespread acceptance and efficient platform use. Nimonik will continue to work with your team to ensure your organization obtains the full value of its subscription.
7. **Consider Historical Versions**: Some companies charge extra for access to historical versions of standards. Evaluate if your organization needs access to backfiles for ongoing projects or continuity in operations. Access to all historical documents is likely unnecessary, and it is important to focus on the standards and versions that matter to your organization.
8. **Balance Hosted Platforms and One-Off Purchases**: Decide whether your organization needs a company-wide hosted platform or if one-off purchases are more suitable for specific needs. Flexibility in buying strategies helps prevent oversubscription and ensures alignment with budget and business goals. Integrating the two platforms allows companies to have subscriptions, conduct one-time purchases, and track spending across both accounts.
9. **User Support through Webinars and Training**: Look for platforms offering webinars, self-paced training, and video tutorials to provide users with efficient access to tools and support.
10. **Platform Capacity and Integration**: Ensure the platform supports Single Sign-On (SSO) and APIs for seamless integration with your existing systems, maximizing usability and security. Nimonik offers both SSO and API access to data. Nimonik is also certified to the ISO 27001 standard for Information System Security Management.
11. **Administrative Features**: Evaluate the platform's administrative features to ensure it efficiently meets your needs for managing subscriptions, users, and access rights.
12. **Usage Statistics:** Ensure the platform you select offers usage statistics to see how many times standards are viewed, downloaded, and used. This allows you to optimize your subscription and reduce costs.
13. **Redline**: Ensure the platform includes redline functionality to easily see the differences between standard versions.

14. **Regulatory Data**: Ensure the platform offers other standards-related data, such as regulatory data, military specifications, or other information.

Standards Subscription in a Single Solution or Multiple Solutions

When you purchase a standards subscription, you can opt to have all of your standards hosted in one location or purchase multiple subscriptions from different vendors. There are advantages and disadvantages to both options.

A single solution will simplify procurement and user experience as all standards will be in a single tool. However, if you purchase many standards (more than 6 publishers), your only option for a single solution may be Accuris. Depending on your needs, Nimonik or Intertek Inform may be able to offer a single solution. If you purchase from more than 12 publishers, Accuris may be the only solution, as they have exclusive agreements with organizations such as AWS, AIA, and PIP.

Purchasing two solutions offers several advantages. First and foremost, you can ensure you obtain competitive pricing from your vendors by comparing their prices. You can also test various user experiences and optimize your spending and standards based on your needs. Splitting your solution means you do not have all your eggs in one basket. It should be noted that if you have Single Sign On (SSO) for both solutions, users can easily navigate from one solution to the other without logging in. You can create hyperlinks to documents in both systems and with SSO, users will not be inconvenienced. The reality is that most large companies have multiple solutions, and the advantages outweigh the costs.

Implementing Standards in Your Organization

Successfully implementing standards in your organization ensures proper integration into daily operations and helps achieve regulatory compliance. Follow these best practice steps:

1. **Identify Relevant Standards**: Begin by identifying the standards applicable to your industry and operations, such as patient safety standards in healthcare or safety protocols in manufacturing.
2. **Gain Leadership Commitment**: Secure leadership support to provide the necessary resources and foster a culture of continuous improvement. Management's backing is critical for success.
3. **Conduct a Gap Analysis:** To compare current practices against the chosen standards, perform a gap analysis. Identify where improvements are needed to meet the requirements. Providers such as Nimonik can help with this.
4. **Develop Implementation Procedures:** Define clear roles and responsibilities. Establish processes that align with the standards, ensuring all employees understand their compliance duties.
5. **Provide Employee Training:** Implement regular training programs to educate staff about their roles in maintaining compliance with the standards.
6. **Establish Verification Processes:** Introduce regular audits and reviews to ensure standards are being used in your organization.
7. **Utilize Metrics for Usage Tracking:** Develop metrics for effective performance tracking. These should be visible to management for continuous assessment. Below a certain usage level, you may want to remove a standard from your subscription.
8. **Continuous Improvement:** Maintain and refine your standards management system by collecting feedback and making necessary adjustments to enhance performance.
9. **Seek External Certification (if applicable):** Pursue certification to validate your compliance with recognized standards.

Once standards are implemented, it's essential to set up a robust compliance management system that ensures everyone understands their role in maintaining compliance. This can be achieved by following the ISO 37301 standard and using a commercial product like Nimonik.

Nimonik

Conclusion

The world of engineering standards is vast and complex and underpins almost all modern products. If you manufacture, design, or contribute to products, standards almost invariably affect you. It is, therefore, critical that your organization obtains the standards that affect your products and operations. This process can appear costly and complex, but partnering with the right provider can help you obtain a cost-effective solution that benefits your team.

In addition to standards, all products and companies are affected by various requirements. This includes, but is not limited to, regulations, customer requirements, engineering constraints, guidance documents, and partner requirements. The solution your organization selects should consider these additional requirements and ensure that data can flow as easily as possible to minimize the risk of error or omission.

Bringing together all your requirements in one location is a challenge, but the first step often starts with a subscription to industry standards that will empower your engineers. Once standards are available and engineers can search for additional information, product development should accelerate, and errors can be avoided before they hit the production line.

For any questions or clarifications about standards subscriptions, please do not hesitate to contact us.

Global Standards and Regulatory Compliance Software

Organize and control requirements.

Comments and feedback are always welcome. Please contact Nimonik with any thoughts concerning the ideas in this document.

Please contact us at info@nimonik.com or **+1-888-608-7511** to discuss how we can help your standards publishing organization improve access to standards, deliver more value, and drive more revenue.