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Where, Why and How the ISRI Scrap Specifications Circular Plays A Crucial Role in Your Business Transactions

ISRI Virtual Event
June 23, 2021, 2:00-3:00 p.m.

Adina Renee Adler, VP of Advocacy, ISRI
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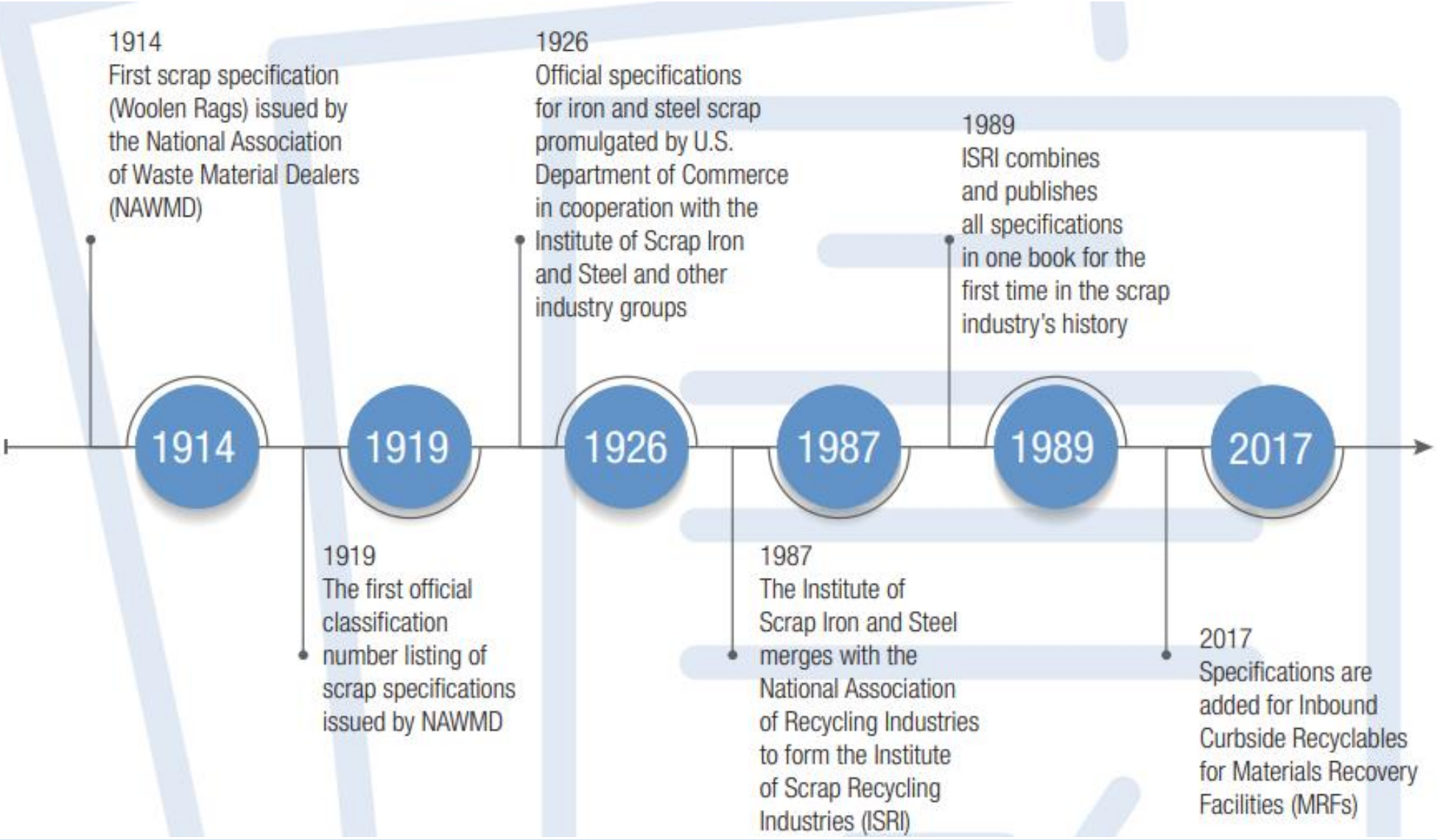
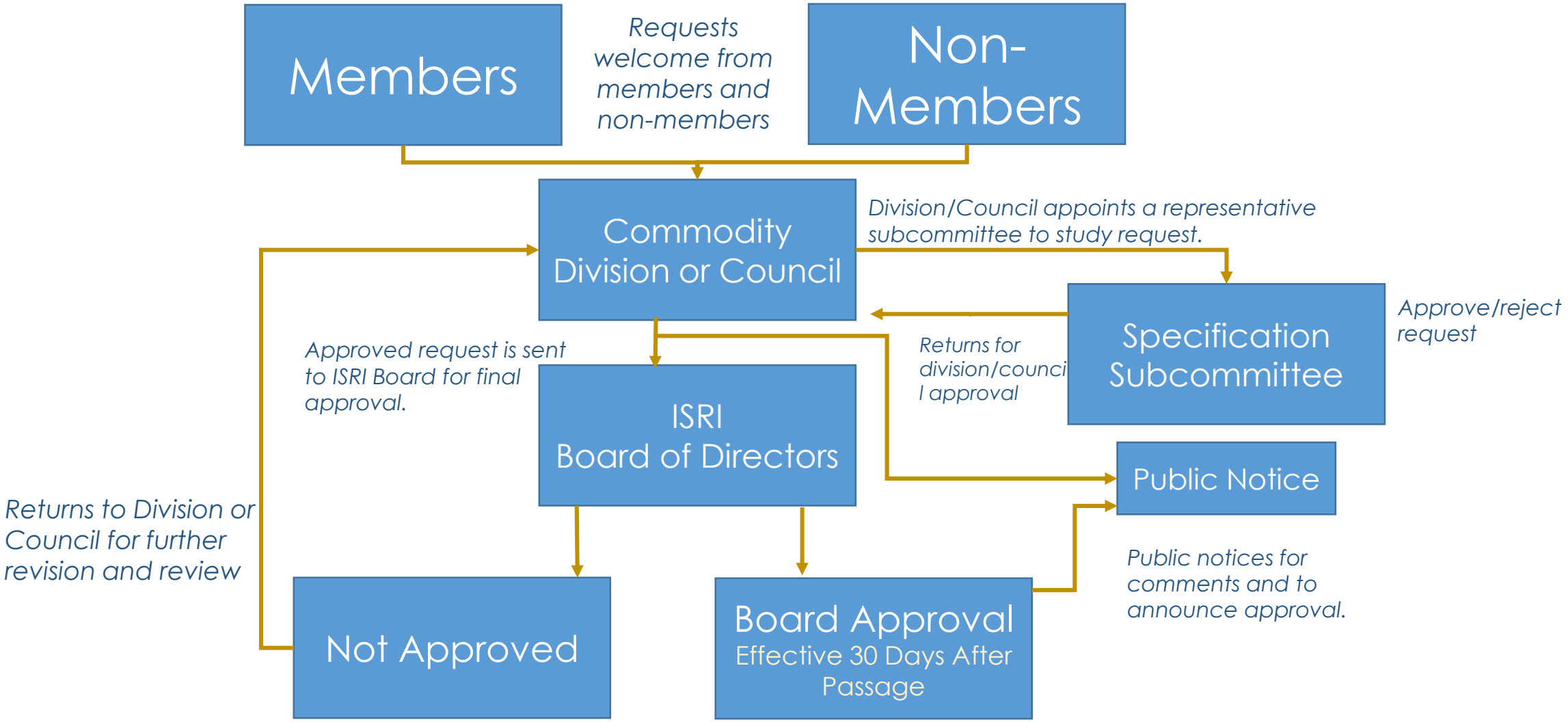
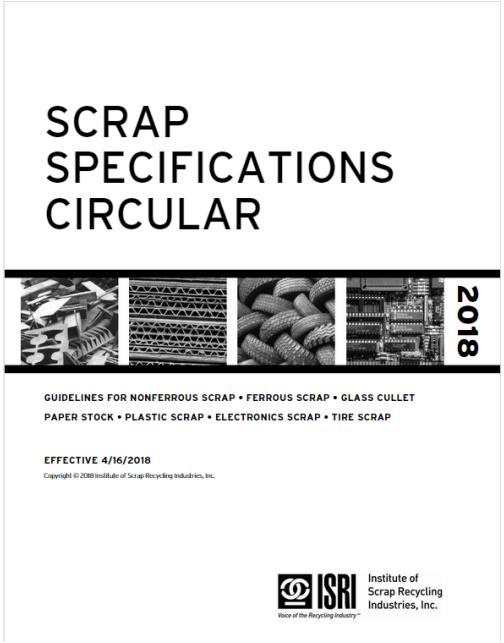
Specs Timeline



How the Specs Are Modified



ISRI's Scrap Specifications Circular



ISRI's Scrap Specifications Circular has been used globally for more than 90 years as a means of promoting consistency & quality in the trade of scrap around the world. The terminology and standards in the hundreds of specs within the circular provide a common language for the global recycling community that allows everyone – regardless of their spoken language or geographical distance from their trading partner — to immediately understand the specific material being shipped, including allowable tolerances for outthrows or prohibitives, as well as specifying where zero tolerance is required. The specs are used by recyclers around the world, as well as by government officials for customs clearance purposes. For example, the Government of India references the ISRI specifications within their own rules to help govern the import of scrap into the country and differentiate those scrap commodities that are of sufficient quality, and thus acceptable for entry, and those that don't meet the quality requirements and are thus unacceptable. ISRI regularly updates the circular, working hard to make sure the specifications are kept up to date to meet changing market and consumer demands.

The following story is reprinted from the September/October 2005 issue of *Scrap* magazine and provides a good background on the development and use of the specs.

The Story on Specs *(*Scrap *magazine, September/October 2005)*

First published in 1919, ISRI's scrap specifications have become the universal language for scrap buyers and sellers in domestic and international trades. Here's a look at their past, present, and future.

In scrap trades, you don't want *Cobra* in your *Cocoa*, do you?

If you're in the business of buying and selling copper scrap internationally, you already know that *Cocoa* is the ISRI term for chopped or shredded wire nodules containing at least 99 percent copper but no more than 0.25 percent tin. Just as important, the person on the other end of the transaction also knows this. You both agree that the product changing hands is *Cocoa*, not *Cobra.*

That distinction is important because *Cobra* also designates chopped or shredded wire nodules, but it can contain as little as 97 percent copper and four times as much tin as *Cocoa*. You both know what to expect—and what to specify in the contract. Regardless of the nationalities involved, you're speaking the same language because you're both using ISRI scrap specifications.

That, in a nutshell, is the benefit—and the beauty—of scrap specs.

Guidelines for the Industry

Specifications are, in simplest terms, shorthand for scrap transactions. ISRI specs generally assign a word, number, and/or letters to a specific scrap product followed by a brief item description, then a more detailed summary—the specification—of the material. *Honey*, for instance, is the word that denotes Yellow Brass Scrap, which is followed by a 36-word spec for the material.

As with *Honey*, virtually all ISRI nonferrous specs identify scrap items using distinctive—and sometimes humorous—words such as *Candy*, *Druid*, *Naggy*, and *Taldork*. In contrast, paper and ferrous specs use numbers, with paper grades designated by single and double digits and ferrous items identified by three-digit numbers.

Many newer categories of scrap specifications use letter and/or number codes. ISRI's plastic scrap specs, for example, all begin with the letter P to designate plastics. The P is then followed by a three-digit number, with each digit providing specific information about the recycled plastic. For example, in the plastic spec P-402, the number 4 refers to LDPE-type resin; the zero identifies the product as a bottle; and the 2 indicates the color of the plastic being recycled (in this case, pigment/dyed). These plastic specs can also be followed by one or two letters that provide additional information about the material's type (such as postconsumer or recovered) and its source (such as industrial, municipal, commercial, or institutional).

The stated purpose of all ISRI scrap specifications is to assist scrap traders "in the buying and selling of their materials and products." Some scrap traders use the specs verbatim in their transactions. "We always use the ISRI specs. I won't even talk to anyone who doesn't," says the manager of an East Coast ferrous and nonferrous recycling firm that trades domestically and internationally. "We usually use the ISRI language just as it is in our contracts."

Others use the specifications as only a starting point in their contractual language. "These designations are not really specifications per se, but guidelines," notes Robert J. Garino, ISRI's director of commodities. "They tend to be broad because they're meant as a starting point between buyer and seller." In other words, the specs are "adaptable and were designed as a basis for negotiations," he adds, noting that this is particularly needed in international trade.

A Brief History of Specs

Published specifications for recycled commodities have been around for almost 90 years.

The first scrap specifications were reportedly developed by the National Association of Waste Material Dealers (NAWMD). When this group was founded in 1913, the scrap industry was "chaotic" and "had no basic standards by which to operate," according to *Scrap Age* magazine. Thus, a main focus of the group's first meeting was "standardizing" the industry's commodities and "setting up trade customs." It wasn't until December 1919, however, that the association issued its first official Classification Number listing of scrap specifications.

Official specs for iron and steel scrap were reportedly promulgated in February 1926 by the U.S. Department of Commerce in cooperation with the Institute of Scrap Iron and Steel (ISIS) and other industry groups.

The oldest specs primarily dealt with metals and were conceived in an era when most long-distance business was transacted via teletype (meaning that messages were sent by telegram or "wire"). The longer the message or

individual words in the message, the more expensive the transmission. To minimize transmission costs, the original scrap specs identified material with short numbers or words. "NAWMD gave each of its specifications a four- or five-letter code name, such as 'Berry' and 'Honey,' while ISIS used a three-digit number," notes Jim Wilkoff of S. Wilkoff & Sons Inc. (Cleveland) in a 1989 article on specifications.

In 1989, ISRI combined all of the specs created by the previous associations and published them in one book for the first time in the scrap industry's history. That book, called the *Scrap Specifications Circular*, has been through many iterations since then, with new editions published whenever new specs are added or old specs are deleted or modified.

ISRI's specs are now also posted online at the ISRI Web site (www.isri.org). The online version essentially makes the specifications a "living document" that can be updated more frequently than the printed circular.

Keeping Up With the Changes

Far from being set in stone, scrap specifications are—and must be—flexible to keep up with changes in the industry. Outmoded specs—such as one for bed brass—are deleted. Existing specs can require modifications. New specs may need to be added in existing categories. And entirely new scrap sectors may require their own specs. Last year, for example, ISRI's board of directors approved the first specifications covering plastics from electronics products. In the rubber niche, ISRI created specs for steel wire from scrap tires in 2003 and, in July 2005, adopted specs for tire rubber destined primarily for civil engineering applications.

Thanks to these new categories, ISRI's specs—which covered only ferrous, nonferrous, and paper as recently as 1988—now also encompass plastics, glass cullet, electronics, tire rubber, and tire wire.

Going forward, there will continue to be a need to amend and expand the ISRI specs. Currently, for example, there is only one ISRI designation pertaining to aluminum extrusions. That designation combines extrusions with aluminum castings and forgings—a category that has little basis in practice in the industry. Additional specifications will also likely be needed in the newer categories of electronics, plastics, and rubber.

Some of the changes will be driven by the international market. Yogi Shah of Recoup Industries Inc. (Edison, N.J.), a shipper of scrap to India, praises ISRI's specs as being "commonly used and much needed," but he insists that "there are some improvements required in certain areas, such as electric motor scrap."

Most scrap motors, he explains, are approximately 90 percent steel, but the intrinsic value of the 8 to 12 percent of copper content is probably more than that of the steel. Because such motors are often shredded before shipment, the recycled product contains both ferrous and nonferrous elements. For that reason, scrap shippers can't send shredded electric motors to certain countries such as India, which has separate duty structures for steel and copper scrap. A new ISRI specification for motors could help remedy this situation, especially since India's customs agency already uses ISRI specs, Shah suggests. Such a spec "would probably fit best under steel scrap grades, where it would be subject to a lower duty," he says. "This would also be an accurate description of the product because it is predominantly steel."

Electric motors aren't the only scrap in need of a spec. Other traders are calling for specifications for such products as scrap transformers and compressors.

Raising another issue, David Chiao of Uni-All Group Ltd. (Atlanta), a shipper of scrap to China, suggests that ISRI specs should consider the processes used to produce particular scrap grades. In a widely used nonferrous spec such as *Zorba*, which covers the mixed nonferrous metals from shredders, the product can vary based on the

infeed material, the machinery used, the geographic location, and even the season, he notes. The *Zorba* spec does allow sellers to add a number to identify the percentage of nonferrous content in the material—such as *Zorba 80.*

Still, Chiao asserts, "I think the spec should emphasize the processing procedure rather than the content of the end product." If a buyer in China puts the ISRI spec for *Zorba 80* on all contract documents, the buyer is telling Chinese customs that the material contains 80 percent metallics. That percentage would not be legally acceptable to Chinese buyers, he says, and the material could be rejected for not conforming to Chinese environmental regulations. "In that case, what do you use for the contract?" Chiao asks.

No matter how or why proposed changes come about, they can't become an official part of ISRI's specs until they go through the association's formal approval process. Here's how it works:

Any person may ask to add, amend, or withdraw an ISRI specification by submitting a request in writing to ISRI's president. The president refers such requests to the specifications committee in the appropriate commodity division (ferrous, nonferrous, paper, tires/rubber, or electronics). Notice of the request is published in *ISRI Focus* newsletter as well as a national trade publication. The request is then considered in a public meeting, with interested parties able to attend or submit comments in writing. After this meeting, the committee summarizes the positions of the various parties and recommends to ISRI's board of directors what action to take. The board can then adopt, amend, or reject the recommendation or table the issue pending further review and recommendation by the committee. Any amended or new specification becomes official 30 days after board approval.

The process of amending or creating a specification can take anywhere from 90 days to 18 months. To help streamline the process, ISRI is considering devising a specifications form or draft worksheet with a line-by-line process for hammering out spec descriptions.

"We don't want to get bogged down trying to negotiate the specification in the meeting phase," says Randy Goodman of Hugo Neu Global Trade L.L.C. (Jersey City, N.J.) and chair of ISRI's nonferrous specifications committee. "That's the wrong time to put it out there. Today, we do specification work by e-mail and conference call. We get the pertinent input from those in the industry before we go to the committee meeting. If we've done our homework, the process works much faster."

Passing the Spec Test

An unintended benefit of ISRI specifications is that they can help distinguish amateur scrap operators from serious business ventures. Just ask Andy Wahl of Newell Recycling of Atlanta Inc. (East Point, Ga.), who says he receives 10 calls a week from people who want to get into the business of exporting scrap.

"I begin the conversation by asking about the ISRI specs for the product they're interested in trading," he says. "If they don't know what I'm talking about, I know they're not serious. It saves me a lot of time."

An International Issue

Most advocates of ISRI specifications note that the guidelines tend to be used more frequently in international transactions than in domestic deals. This is especially true in nations where the scrap recycling and consuming industries have been firmly established for decades, such as the United States and the European Union. There, it's common for scrap consumers to have their own specs.

"Domestic entities don't tend to use our specs as much," says ISRI's Robert Garino. "If you're a U.S. brass mill, for example, you have specs that fit your specialized products. Some specs are literally specific to one mill or an individual customer. Some are even confidential."

That said, domestic scrap consumers can still benefit from knowing about ISRI specifications, in part because of their major influence on international trade in many markets. To increase exposure of ISRI specs among the association's U.S. members, in fact, Robert Garino showcases a different spec in each issue of his weekly *Monday Report* e-mail newsletter. That move has generated significant commentary and dialog from ISRI members about the specifications.

Given the growing globalization of the scrap industry, though, perhaps the biggest looming challenge for ISRI will be managing how its specifications are used internationally. Many nations already use ISRI specifications in their domestic industries as well as in determining their duty structures for imported scrap, and this trend is growing, especially in Asian countries like India and China. In 2004, in fact, ISRI entered into a licensing agreement with the Beijing Zhongse Metal Recycling Institute for the use of ISRI's nonferrous specifications in China. The license agreement includes translation of ISRI's *Scrap Specifications Circular* into Chinese and distribution of this translated version in China. This five-year license is "part of our continued efforts to ensure global acceptance and adoption of ISRI's specifications," says ISRI President Robin Wiener.

ISRI as well as the Bureau of International Recycling (Brussels, Belgium) has also held several discussions with Chinese authorities on specs-related issues. The associations, for instance, have asked the Chinese government to clarify its definition of mixed metal scrap, in part because China's customs inspectors have at times placed insulated copper wire in the mixed scrap category. There have been similar issues with ferrous grades.

ISRI is also closely monitoring plans by the Central Japan Commodity Exchange to launch a ferrous scrap futures trading contract in October. The London Metal Exchange has considered offering a similar contract, though such an event, if it comes about, would be further in the future. Both exchanges would need to work closely with the recycling industry on the appropriate specification for any traded product. Having the right spec could, in fact, decide the success or failure of any scrap futures contract.

In addition, ISRI has increasingly reached out to other industry organizations to coordinate best practices regarding scrap specifications and categories. It's in everyone's best interest, after all, to avoid duplicating efforts, ISRI's Garino states.

Scrap specifications have obviously come a long way in their almost 90-year history. They started out as an industry resource with limited scope, one designed primarily for domestic transactions and updated only occasionally. Now, thanks to ISRI, scrap specs are a full-time, continuous, international effort that helps traders conduct business in any location, at any time, worldwide.

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Publisher's Note: A PDF version of the ISRI Scrap Specifications Circular *can be downloaded free from the ISRI website at https://www.isri.org/recycling-commodities/scrap-specifications-circular.*

In addition to guidelines for ferrous, nonferrous, paper, plastics, glass cullet, electronics, and rubber, the circular includes information on the preparation and transportation of materials; rules and procedures for adding,

amending, or withdrawing specifications; and information and guidelines on dispute arbitration and arbitration services available.

https://www.wsj.com/articles/in-scrap-metal-market-buyers-have-to-tell-darth-from-vader-1459263473

A-HED

In Scrap-Metal Market, Buyers Have to Tell 'Darth' From 'Vader'

U.S. committee picks names for junked goods; Tata, Toto, Tutu

The U.S. is the world's top scrap metal producer and exporter. An auto junkyard in Detroit.

PHOTO: JOHN W. MILLER/THE WALL STREET JOURNAL

By John W. Miller

March 29, 2016 10:57 am ET

When Randy Goodman calls a customer in China, the 51-year-old scrap trader sometimes asks: Do you want Elmo, Shelmo or Zorba?

The world's $100 billion trade in junked cars, refrigerators and other metallic goods hinges on 100 or so short, catchy terms.

Candy: Heavy copper.

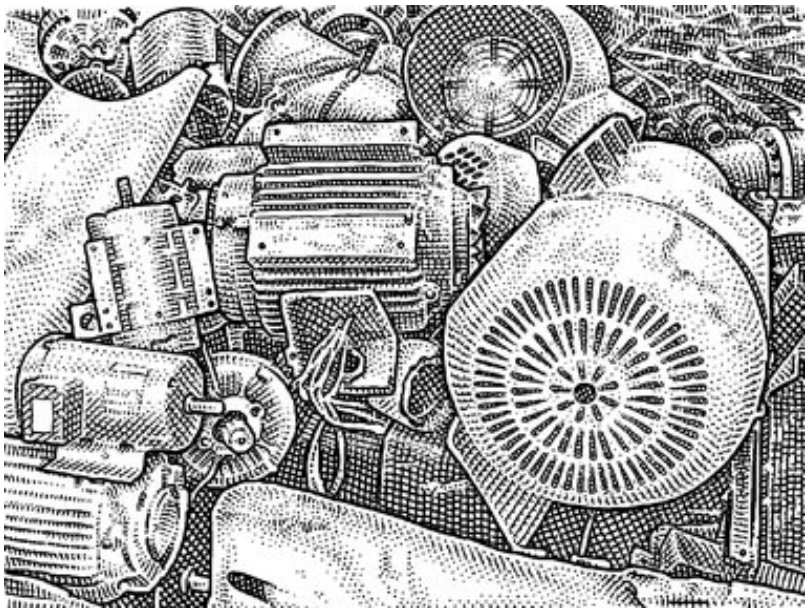
Lady: Brass shell case.

Thigh: Aluminum grindings.

Not only does Mr. Goodman, an executive vice president with Atlanta-based trading company Greenland America Inc., know and use all these code words to sell scrap

aluminum, copper and zinc around the world. He gets to make them up.

Mr. Goodman is part of a tiny committee of Americans—just three or four people—who define new categories of scrap metal for the entire world, on behalf of the Institute for Scrap Recycling Industries Inc., the association of U.S. scrap dealers.



Elmos

Without ISRI's ability to come up with punchy, mellifluous words that can be pronounced in any language, traders say it would be hard to tell a buyer on the other side of the world exactly what's for sale. The nomenclature tells what is in a mix of scrap, including what condition it is in.

"I like a little double entendre," says Mr. Goodman, recalling how he made up "Elmo" so that U.S. traders could sell recycled electric motors to China, and "Shelmo" for shredded electric motors. "You should have heard the chuckles when I proposed that."

The result reads like absurdist poetry but helps buyers distinguish Cocoa (shredded wire containing at least 99% copper but no more than 0.25% tin) from Cobra (shredded wire with minimum 97% copper and not more than 0.5% aluminum). Zorba is a mix of eight metals.

Many definitions are deliberately boring. Ecstatic, for example, "shall consist of scrap borings and turning alloyed with copper, tin, bismuth and zinc."

Among other creations: Dream, Lark, Naggy, Ocean, Taboo, Taldork, Throb, Trump and Twist.

Every year, a few terms are added, and others removed. Bed brass was recently put to sleep.

Coining names has become particularly important since the 1990s, when global trade in scrap metal took off. U.S. ferrous scrap exports have risen to an average of 20 million tons a year, worth between $4 billion and $15 billion depending on prices, this decade, from an average of 10 million tons a year between 1995 and 2005.

Also, the products coming out of scrapyards, which grind up cars, computers and iPhones, have become increasingly complex. Changes in metallic ingredients—there is more aluminum in cars, for example—and inventions such as electric motors make it even more important to accurately summarize long, complicated definitions that easily make your eyes glaze over.

Some countries and regions have their own terms. ISRI, which is funded by the U.S. scrap industry, has emerged as the dominant definer. The U.S. produced the first modern industrial consumer boom, generating prodigious quantities of cars and refrigerators. It has the largest stockpile of recycled materials and the world's biggest scrap industry.

Every year, ISRI publishes a specifications guide, which scrap buyers from Brussels to Beijing read carefully. India requires all scrap imports to use ISRI specifications.

"The U.S. is a large exporter and those specs are convenient and easy to say," says Ross Bartley, trade and environmental director for the Brussels-based Bureau of International Recycling. "Honey sounds good."

Honey, of course, is brass that is "free of manganese-bronze, aluminum bronze, unsweated radiators or radiator parts, iron, and excessively dirty and corroded materials."

The names are short because they were originally used in teletype messages, and any word with more than five letters cost the price of two words.

The tradition of naming scrap categories goes back a long time. In 1914, the National Association of Waste Material Dealers published a list of specifications. A dominant category at the time was rags, used to make linen and paper. "No. 2 Whites," for example, were "white cottons, free of dump, street rags, scorched, painted, oily rags."

Companies' requests for new specifications are sometimes denied. In 2012, a company in Johannesburg, which had recently scrapped 69 large aircraft, asked for a new category for shredded aluminum aircraft scrap. ISRI rejected it, because aircraft scrap isn't often traded internationally. Instead, airplanes are sent to graveyards where they are disassembled for their parts and recycled locally.

Mr. Goodman says he prefers to come up with terms that make phonetic sense—such as having similar names for similar types of metal. He fondly recalls when he came up with "Tata, Toto and Tutu" to describe three categories of scrap aluminum Indian firms wanted to sell overseas. "I like inventing words that are esoteric but that have a meaning behind them," he says.

However, Mr. Goodman says the committee may have gone too far last year when it came up with "Darth" to describe "ballasts containing copper inside" and "Vader" for "steel-cased compressors" from air-conditioning units.

"We were just having a little fun, playing off popular culture," says Matt Heitmeier, current chair of the naming committee, until mid-April. He said he has never heard of a name rejected as inappropriate.

Tom Werner, a professor of linguistics at Carnegie Mellon University, says the ISRI's committee "should get credit for bringing some flair to the task." When defining a new term, writers can coin new words or apply new meanings to existing words, he says.

"They're mostly using the second strategy," he says. "And you have wiggle room because a first principle in linguistics is that the sign is arbitrary, which means there is no necessary connection between the form of a word and its meaning." Honey, he says, "isn't something I would associate with crushed metal."

Some local scrapyard dealers in the U.S. say they often don’t use the names. “I don’t deal much on export markets, so I just say what I’m selling, brass, copper or whatever,” says Randy Castriota, who owns two scrapyards in Pittsburgh and sells around $3 million worth of metal a year.

Still, he adds, “I know what honey means.”

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Appeared in the March 30, 2016, print edition as ‘.’