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### Chairman's Corner



#### *Introduction*

As this is my first column as chairman, I want to welcome everyone to the Electronics Division and hope everyone will get involved in the many issues that are happening in the world of electronics recycling. I also want to thank Bill Long for chairing the Division for the past two years and forcing the Division to recognize the new issues facing this industry such as lithium-ion batteries, the right to repair and reuse electronic devices, data privacy and security concerns and protocols, and the new world of the Internet of Things. We will be going further on all these issues over the next two years along with several other emerging issues. I expect the next two years to be an exciting time as the industry changes and grows. One of my goals is to renew the Division's mission and purpose. Accordingly, I have re-created a divisional structure to address the various subjects from education to specifications to public policy threats. I hope this structure will make us more efficient and effective as we go forward.

#### *National Convention*

The ISRI Annual Convention and Exposition in Las Vegas was an excellent and well-attended event this year. The sessions that were put on by the Electronics Division were full of great content and gave those that attended the valuable information to take back to their companies and organizations. This was also an election year for ISRI and we said farewell to Bill Long, who has served as our chairman for the past two years. We are very appreciative of the time he served on the board and want to extend our thanks to him for serving. Bill will continue to be active within ISRI as he will be volunteering time on a couple of different committees over the next two years.

#### *New Board Members*

With the election this year we are fortunate to have two very experienced veterans of the industry join the board. Craig Boswell, a long time active member, from HOBI International will be the Vice-Chair in this term and Jim Levine of Regency Technologies will be the 2nd Vice-Chair. Jim served the past two years as chair of the finance committee of the national board and is a former chair of the Electronics Division.

#### *Electronics Division Committees*

After numerous meeting and calls within the Division, we have finalized our agenda and goals for the next two years. One of the first decisions we made was to resurrect the six committees that had been in place since the early days of the Division. While our industry has been fortunate to have a relatively quiet period over the last few years there are numerous issues that we are or will be facing and we are committed to be in front of the issues and to be the *Voice of the Industry* to support you.

The committees that we re-formed and the Chair of each committee are as follows:

- Membership – Bill Long, All Green
- Reuse and Recycling – Craig Boswell, HOBI International
- Definitions and Specifications – John Birkholz, AERC
- Education and Training – Jim Levine, Regency Technologies
- Certifications and Standards – Megan Tabb, Synergy
- Legislative and Regulatory – Joe Clayton, ARCOA Group

We have an immediate need of volunteers for Reuse and Recycling, Definitions and Specifications, and Education and Training. Each of these committees has an aggressive agenda in front of them and your help will be needed.

#### *What's an ISRI MEMBER?*

When my company first joined ISRI, we did what many new members will often do. We signed up, paid our dues, browsed the website, and then continued on about our business and never gave our membership a second thought, other than to add the ISRI logo to our website. When it came time to renew the next year the first thing that came up in our internal discussions was, "is it worth it." It just happened that the next day I was on the phone with a long-time member and mentioned that we wouldn't be renewing our membership and I will never forget what he told me. He said, "George, if you want to see the value then you have got to get involved." What he told me is now my message to you. ***If you want to see the value, you need to get involved.*** It has been true for my company and me, and I am very thankful to the member that took the time to convince me to go to my first board meeting. Take my advice, if you haven't attended a national board meeting, commit to attend two meetings in the next year and also get out to your chapter meetings. Make a commitment to get involved and you will see the rewards.

#### *2018 – 2020 Division Goals*

As I mentioned above, we have had numerous meetings to outline our goals for the next term and we want to share these goals with you. Achieving these goals will require help from you and I would ask that you consider joining one of the committees. If you are interested in serving and have questions, do not hesitate to reach out to Billy Johnson or myself.

A few of the goals and agenda topics we will be pursuing over the two years will be: increasing Division membership and participation, creating a set of functional and cosmetic grading guidelines for equipment destined for reuse that ranges from wireless and handheld devices to networking equipment and servers and more, development of an education and training platform geared towards the reuse, repair, and resale of electronics that expands on our traditional focus on recycling, and work with ISRI Safety to draft documentation that addresses safety issues with lithium batteries that will include safe handling, testing, storage, recycling, and transportation guidelines and best practices.

#### *CES 2019 Las Vegas*

The Electronics Division winter board meeting will be held this year at the [Consumer Electronics Show](#) in Las Vegas. The [Consumer Technology Association](#) has graciously offered to host our meeting and will be in attendance at the meeting along with a number of their members. ISRI will also be part of a panel discussion that will be part of the CES program. We think this is an exciting opportunity and we would like to see a large turnout for our inaugural meeting. We are working with the CTA on a couple of special offers for ISRI members that attend the meeting and will share the details with you, as we get closer to the meeting.

#### *On The Horizon*

The GDPR or General Data Protections Regulation goes into full effect this month in the European Union. Originally approved by the European Parliament in April of 2016 with a two-year transition period the law will now be in effect as of May 25. This sweeping law cuts through all sectors, industries, and service provision within the EU. Of note is this law's extra-territorial effect as companies outside the EU dealing with data of citizens within the EU must also be compliant, and are subject to hefty fines. The minimum fine for non-compliance is 20 million Euros.

Prior to this legislation, it was just the "controller" of the data who was responsible; now with the new regulation the "processors" now have responsibility as well. Does this mean that ITAD providers and recyclers are subject to the regulations? The answer is: probably. Can the law be enforced on companies within the United States? We don't know yet. GDPR made a recent appearance in Supreme Court arguments this month in a case involving Microsoft. It has been reported that decisions made by the Supreme Court could set up a future conflict for companies seeking to comply with both U.S. and EU laws. ISRI staff will be looking into the matter and we will have updates for you as they come available.

#### *In Closing*

[Get involved](#). ISRI is the *Voice of the Recycling Industry*. For ITAD providers, refurbishers, and electronics recyclers, ISRI is the only trade association that has the resources available to support your company and our industry. Don't just be a member, be involved.

Sincerely,  
**George Hinkle, ARCOA**  
**ISRI Electronics Division Chair**

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### **Increasing IoT Security Risks in an Increasingly Connected World**

By Craig Boswell, President  
HOBI International, Inc.

With the rapid rise of the IoT, there is a growing concern with the security risks associated with the connected technology. The technology is quickly being adopted into both the personal and professional setting and as the IoT ecosystem continues to expand, so does the attack surface of cyber-criminals to exploit. The more people choose to rely on connected technology in their day-to-day lives, the more vulnerable they are to the cyber threats increasingly tailored to exploit vulnerabilities and design flaws in IoT. These security risks present very challenging issues for data security companies as we now not only have to protect company-owned devices but must also defend against threats targeting external machines that could potentially connect to the network.

Since software allows connected IoT machines to “talk to each other,” organizations have to worry about the loss of sensitive personal and enterprise information, which can lead to significant financial and reputational damage, massive distributed denial-of-service (DDoS) attacks designed to take down major websites and more. These incidents often stem from misconfigurations, default or easy-to-guess passwords, and inherent vulnerabilities in the devices themselves.

However, there is a lack of regulatory bodies to implement industry-wide standards that will hold IoT device manufacturers and developers accountable for these omnipresent flaws. The most important rule of thumb for IoT manufacturers is to test security during each phase of the development process. Doing so will be a much easier and less costly way to detect any security issues during the prerelease stages than to waste resources fixing bugs after devices have been released on the market. Once development is complete, the devices should undergo rigorous application security testing, security architecture review, and network vulnerability assessment.

The security requirements of an IoT system are complex and often extend past the traditional information security requirements of confidentiality, integrity, and availability. A good start to addressing the issue is to scrap default passwords. When devices reach the end users, the users should be required to establish strong and unique credentials during the installation process. It is important to embed encryption capabilities according to the least privilege principle.

Another possible solution for organizations to protect their data privacy is to establish an incident response team to remediate vulnerabilities and disclose data breaches to the public. All devices should be capable of receiving remote updates to minimize the potential for threats to exploit outlying

weaknesses to steal data. It is crucial to invest in reliable data protection and storage solutions in order to protect users' privacy and sensitive company assets.

Companies look to their ITAD processors to be experts in many areas of data security. As IoT data security issues emerge, it is incumbent on the ITAD industry to remain abreast of these growing issues and the data security breach risks they represent.

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### **ISRI and the EPA Focus on Lithium-Ion Battery Processing**

At the recent convention in Las Vegas, the Electronics Division hosted a panel discussion on lithium-ion battery processing. The safety of lithium-based batteries has attracted a significant amount of media and legal attention as of late, so it is no surprise it has been a hot topic with ISRI members. At the ISRI convention, speakers discussed collection strategies of lithium-ion batteries, proper handling of the different types of lithium batteries, testing for reuse for specific types of reusable batteries, and packing of batteries designed for recycling to meet Department of Transportation guidelines.

The panel was composed of industry experts: Craig Boswell, president of HOB International Inc., Todd Ellis, director of production stewardship programs for Call2Recycle, Inc., Todd Coy, executive vice president at KBI and vice president of Retrie Technologies, Inc., and Robert Kang, CEO of Blue Whale Materials, responsible for overall strategy, consumer acquisition, and partnership development at BMW. Together, the group discussed how different types of lithium batteries are recycled into feedstock for refining and the final refining process used to create materials to manufacture new batteries. Boswell explained "this is a critical issue for our industry, as these batteries become more ubiquitous across all types of products, we need to insure we protect employees and recover the valuable commodities contained in the batteries."

In addition, the EPA has assisted with this very important issue by conducting two webinars on lithium-ion battery processing and safety. The first webinar entitled, "*Sustainable Materials Management (SMM) Web Academy Webinar: An Introduction to Lithium Batteries and the Challenges that they Pose to the Waste and Recycling Industry,*" speakers discussed how quickly lithium-ion batteries are becoming more prevalent in American homes and businesses as electronic devices become smaller, more portable and more essential to our daily lives. The webinar covered the basics of lithium batteries, the impacts to the waste management industry, and information on lithium battery recycling.

The second EPA webinar entitled, "*Sustainability Materials Management (SMM) Web Academy Webinar: Management Challenges for Lithium Batteries at Electronics Recyclers,*" continued the discussion on problems presented by lithium batteries at material recovery facilities (MRFs). This webinar was presented as a panel discussion on the problems of electronic recyclers are facing, recommended best practices for removal and transportation of lithium batteries from electronics and suggestions for how manufacturers and recyclers can work together to solve this problem.

The development of lithium-ion technology has played a significant role in technology evolution, never more so than in the consumer electronics sector. Today's consumer demands that mobile devices and other technologies give them increased functionality with portability, and lithium-ion has helped manufacturers deliver that performance. However, considering the growing number of lithium-ion batteries being used on the market, electronic manufacturers and recyclers must strive to continue examining and improving safe handling and transport of these devices.

Lithium-Ion batteries will be with us for the foreseeable future and a wide variety of issues and challenges will face this and other industries who use, handled and transport them. In other words, this is an issue that will be addressed at the ISRI Electronics Division. If you would like more information or would like to participate in these discussions, please sign up and participate in the Division meetings and events.

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### **The New EU General Data Protection Regulation: 7 Principles to Govern Data Collection Practices**

The necessity for securing and protecting customer data is the driving force behind the EU's recent General Data Protection Regulation (GDPR) that went into effect on May 25. The questions surrounding the new EU directives is exactly how organizations will implement securing their data and what to expect when it comes to GDPR enforcement. Additionally, some regulations are left up to interpretation as to how organizations should design their data protection and destruction strategies. Everyone's approach towards compliance will probably be different for, even though the end result must be the same. The legislation is made up of seven key principles (all carrying equal weight), which will replace the eight rules that make up the existing, historically ambiguous directives. Under the new legislation, data processing and destruction must include:

1. **Lawful, fair and transparent processing** – This principle emphasizes transparency for all EU data subjects. When the data is collected, it must be clear as to why the data is being collected and what the data will be used for. Organizations also must be willing to provide details surrounding the data processing when requested by the data subject. For example, if a data subject asks who the data protection officer is at that organization or what data the organization has about them that information needs to be made available.
2. **Purpose limitation** – This principle means that you need to have a lawful and legitimate purpose for processing the information in the first place. Consider all the organizations who make you fill out a form with 20 fields, when all they would need to sell you that gadget is your name, email, shipping address and maybe a phone number in case they need to get ahold of you. Simply put, this principle says that organizations shouldn't collect any piece of data that doesn't have a specific purpose, and those who do can be out of compliance.
3. **Data minimization** – This principle instructs you to ensure the data you are capturing is adequate, relevant and limited. In this day and age, businesses collect and compile every piece

of data possible on you for various reasons, such as understanding customer buying behaviors and patterns or remarketing based on intelligent analytics. Based on this principle, *organizations must be sure that they are only storing the minimum amount of data required for their purpose.*

4. **Accurate and up-to-date processing** – This principle requires data controllers to make sure information remains accurate, valid and fit for purpose. To comply with this principle, the organization must have a process and policies in place to address how they will maintain the data they are processing and storing.
5. **Limitation of storage in the form that permits identification** – This principle discourages unnecessary data redundancy and replication. It limits how the data is stored and moved, how long the data is stored, and requires the understanding of how the data subject would be identified if the data records were to be breached. To ensure compliance, organizations must have control over the storage and movement of data. This includes implementing and enforcing data retention policies and not allowing data to be stored in multiple places.
6. **Confidential and secure** – This principle protects the integrity and privacy of data by making sure the data is secure. An organization that is collecting and processing the data is now solely responsible for implementing the appropriate security measures that are proportionate to the rights and risk of the individual data subjects. Negligence is no longer an excuse under GDPR, so organizations must protect the data from those who are either negligent or malicious.
7. **Accountability and liability** – This principle ensures that an organization can demonstrate to the [governing bodies](#) that they have taken the necessary steps comparable to the risk their data subjects face. For example, GDPR requires organizations to respond to requests from a data subject as to what data is being held on them and promptly remove that data, if desired.

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### State Legislative Roundup

Only 12 states are still in their regular legislative sessions, though several will inevitably be back for special sessions through the summer and fall. Those states still in session will be racing to finish before their sessions officially end - or the 2018 election campaigns require a break until November. ISRI is currently tracking almost 900 bills and regulations impacting the recycling industry, and over 100 of those directly target electronics.

#### *Electronics Recycling Law Amendments*

Illinois continues to work towards allowing CRTs to be stored in landfills for future retrieval while barring independent accreditation organizations (such as SERI with the R2 Standard) from penalizing such companies. The current version was substitute amended into Illinois HB 1439 and has passed both chambers.

In Maine, LD 1847 was passed despite a veto by Governor LePage. The overall impact appears to be to remove computers that don't include integrated displays, exempt cellphones, and change manufacturer

responsibilities to market share for all items (currently return share for computer products and market share for TVs). This effectively relieves manufacturers of older TVs from some of the responsibility for their products by grouping computer monitors, laptops, and tablets into the same category as TVs. Responsibility for recycling payments is then based on each company's current market share of sales instead of the weight of electronics with their brands that were recycled.

### *Right to Repair*

While many states have showed some interest in Right to Repair legislation (ISRI tracked 26 bills that were introduced or saw movement so far this year), the issue is still working to gain traction in the legislatures.

Vermont SB 180 has come the closest to passage so far this year; although the bill was amended from a model electronics right to repair requirement into a study bill, versions were still passed by both chambers of the state legislature. Unfortunately, the versions were not concurred before the regular session ended, and while Vermont is currently back for a special session, they are reportedly focused on hammering out differences in budget and tax bills to avoid a shutdown on July 1.

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### **Thanks to All Who Have Contributed To R2**

By John Lingelbach, Executive Director of SERI

ISRI's Electronics Division has been instrumental to the development and growth of R2. Companies including HiTECH, Regency Technologies, Arcoa, and many others stepped up and provided significant early financial support. Individuals including Bill Long, Joe Clayton, Rike Sandlin, Julius Hess, and many others have donated countless hours to the initial development of and subsequent revisions to the R2 Standard.

For the past twelve years I have had the good fortune to work with these companies and individuals on R2, first as the "facilitator" of the multi-stakeholder negotiation through which the R2 Standard was originally developed and then as the executive director of the R2 "housing body" – initially called R2 Solutions and now called SERI (Sustainable Electronics Recycling International). Next month I am stepping down as executive director; it's time for someone new to take R2 to the next level, to make it a truly international standard.

We – all that have contributed – have accomplished so much. 786 electronic recycling facilities are currently R2 certified and 23% of them are located outside the United States. When the first facility was certified in early 2010, no one would have predicted such rapid growth. And while we can't quantify it, perhaps more significant is the number of customers, particularly multinational corporations that are now requiring R2 of their ITAD and recycling partners.

SERI's excellent, highly-committed staff has been working diligently to effectively manage this growth. This has entailed working with the certification bodies, training the auditors (currently there are close to

90), and conducting oversight activities to monitor the work of the auditors and the conformance of certified companies. We are also continually working to improve SERI's databases and other internal systems to accommodate the program's growth and enhance SERI's capabilities to effectively manage and oversee it.

There is also the R2 Technical Advisory Committee's (TAC's) work on revising the R2 Standard. The industry is growing and with that comes new business models, new arrangements with, and new services for customers, some of which were not envisioned and cannot be accommodated under the current version of the standard. The TAC currently is exploring whether, and if so, how R2 can address these new models, arrangements, and services. This is difficult and arduous work. I can't express strongly enough my appreciation and respect for each TAC member; they volunteer so much time and are so committed to R2.

Thank you Electronics Division members for all the support for R2 over the years. In fact, thanks to all in the industry who have supported R2 in so many ways. Here's to the continued growth and success of R2!

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### **New Layout and Resources for Recyclers**

ISRI has redesigned its website, and we also have new tracking tools for our members; make sure to update any bookmarks and let us know if you're having any problems finding material with the new layout.

The [State Resources and Tracking Pages](#) have been revamped with live legislative and regulatory reports for each state as well as select commodities and issues, such as electronics, extended producer responsibility, and right to repair. You can sort these reports by last action or alphabetical order, search for specific bills or sponsors, and much more; contact [Justin Short](#) if you'd like to learn more about these features.

*Go Deeper:* If you have any questions or concerns about pending legislation or regulations or the existing requirements in your state, you can always access the tracking tools and information on the [State Policy](#) pages or contact [Danielle Waterfield](#) or [Justin Short](#).