

Conflict Minerals: The Tipping Point for Compliance?

CIMdata Commentary

Key takeaways:

- *Companies developing products across a wide range of industries face increasing complexity in their products and value chains*
- *Meeting material-focused product and supplier compliance regulations is a difficult problem for companies seeking to compete in global markets*
- *Section 1502 of the Dodd–Frank Wall Street Reform and Consumer Protection Act requires companies to understand their exposure to “conflict minerals,” levying new assessment, analysis, and reporting requirements*
- *The PTC Materials Compliance Solution offers a proven platform that can help companies quickly meet these evolving requirements, while positioning themselves to address a wide range of compliance management issues*

The products that we know and love are no longer simple forcing industries like automotive and aerospace to develop much more complex products, using increasingly complicated supply chains to address global markets. In fact, the product development requirements in these industries helped lead to the emergence of product lifecycle management (PLM) strategies and solutions, focused on helping companies manage this complexity from ideation to retirement. Now, manufacturers across most segments, including electronics, medical devices, industrial, and retail must manage complexity that increases daily.

A major source of complexity is regulatory compliance. When companies sold a small portfolio of products in a single market, keeping track of the governing regulations was manageable. As their portfolio grew, the compliance challenges grew with it. But, the problem was still narrowly defined. Today, when companies sell into global markets with a range of products, it can be very difficult to keep requirements straight.

Global markets levy global requirements. In the last decade alone, a number of major regulations have gone into effect worldwide, including:

- The Waste Electrical and Electronic Equipment Directive (WEEE Directive) in 2003
- The Restriction of Hazardous Substances Directive (RoHS) in 2006
- Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) in 2007

These regulations are just the start, as highlighted in Figure 1. There will certainly be more to come.

The Clock is Ticking: Conflict Minerals Reports Needed by May 31, 2014

Within the realm of global environmental and social regulations, managing the diverse requirements associated with so many country-specific and regional variants creates an additional minefield for product companies. To ensure compliance, manufacturers need to understand the contents of their products and how they were made. This can be difficult to do, even when one company manages the whole value chain. With component suppliers and contract manufacturers around the globe, most companies struggle to gather and process the essential information to make the necessary compliance assessments.

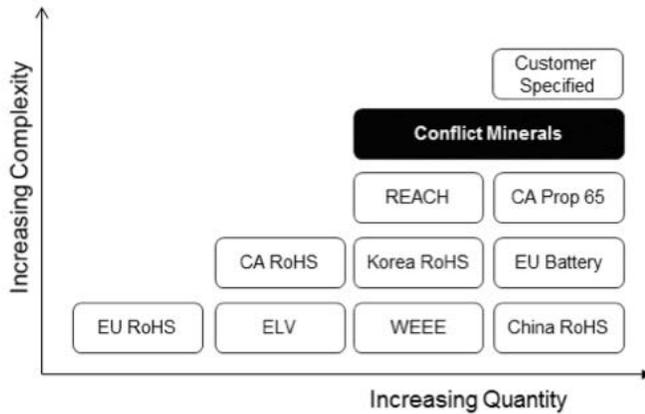


Figure 1—Increasing Numbers of Materials-Focused Regulations

Now, U.S. Securities and Exchange Commission registered companies have a much more urgent need: Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Conflict Minerals Rule, which passed Congress and was signed into law by President Barack Obama on July 21, 2010. This law requires companies to understand the country and mine origin of

materials used in their products, including all supplied materials and components, and to produce detailed reports for submission to the SEC. The focus is on the “3TG” minerals tin, tantalum, tungsten, and gold (and more than 700 derivative compounds of these metals) from the Democratic Republic of Congo (DRC) and several surrounding nations in central Africa.

Under the law, a company that uses any of the designated 3TG minerals is required to conduct a reasonable country of origin inquiry (RCOI) that must be performed in good faith and be reasonably designed to determine whether any of its minerals originated in the covered countries, and/or are from scrap or recycled sources. If there is reason to believe 3TG minerals are from a covered country, a company must conduct due diligence. The investigation must conform to a nationally or internationally recognized due diligence framework. Today, the only recognized framework for conflict minerals due diligence is provided by the Organization for Economic Co-operation and Development (OECD). The data collection methodology for this new law leverages knowledge and processes from previous efforts to identify conflict-free smelters run by the Global e-Sustainability Initiative (GeSI) in partnership with the Electronics Industry Citizenship Coalition (EICC)¹. The first reports to meet this requirement will be due to the SEC in May 2014, and annually thereafter. In addition to SEC submissions, companies must also publish information on their Website, with the URL to be included in their Form SD submittal as required by the legislation.

Just which companies will be required to comply with Section 1502? According to the U.S. Government Accountability Office (GAO)², roughly 280,000 suppliers could be selling products to over 6,000 manufacturers that are registered with the SEC and likely to contain 3TG in their products. Suppliers will need to provide conflict minerals supplier declarations to the registered manufacturers so that they may complete their SEC filing. Although the European Union does not currently have a conflict minerals regulation in place, legislative hearings are underway to develop similar requirements that will further impact manufacturers and their suppliers.

Meeting the Assessment and Reporting Challenge

Once a company determines that the Conflict Minerals law applies to their products, the process requires significant data collection and processing. This is a complex problem that is typically addressed by a combination of technology and changes in business processes. Some companies try to cope by using Microsoft Excel and email alone. But this approach is a

¹ <http://gesi.org/portfolio/project/16>
² <http://www.gao.gov/products/GAO-13-689>

poor substitute for a solution designed to address this class of problems. Based on CIMdata's research, there are a few major categories of Conflict Minerals solutions available to address this need.

Niche compliance players—Niche vendors offer simplistic, often portal-based solutions for collecting conflict minerals supplier declarations. These solutions strive to improve supplier communications, but they often do not understand the relationship between, parts, products and suppliers that is required to support the full reporting requirements of business stakeholders, customers, and the SEC. Other niche firms advertise a turn-key solution for everything from scoping to supplier data collection, product reporting, and SEC filing. These offerings are comprised mainly of services with some software and require on-going engagements. In both of these scenarios, niche vendors treat conflict minerals as an individual problem rather than as part of a larger materials, supplier, and product compliance program.

Audit firms—These firms have focused consulting and audit offerings for conflict minerals. They offer expertise in designing conflict minerals policy and procedures. Through a mostly services engagement, they offer an end-to-end solution. However, the software they provide is limited to assisting with the supplier data collection process. The offering requires on-going services engagements and, when used alone, fails to meet a strategic objective, to establish a solution that manages conflict minerals compliance as part of a holistic material compliance process.

Supply chain management—Supply chain management offerings strive to provide an integrated platform to support supplier issues and leverage practices in operations management and procurement. Typically supply chain-oriented systems focus more on supporting the data collection process, often building on top of their procurement functions that already support supply chain interaction. However, these systems are not usually oriented around the product and its product structure.

Enterprise resource planning—While most ERP providers offer some support for materials compliance, there is no public information to suggest that conflict minerals support capabilities available from the leading solution providers in this space offer the breadth of functionality necessary to address the complete set of requirements.

The PLM market—Providers of collaborative Product Definition management (cPDm) platforms are increasingly adding such capabilities to be able to better leverage the full product records that they manage. Solution providers build, partner with other companies, or acquire the necessary materials information that is embedded in their solution that supports product design activities. Each element of the design—the parts, assemblies, and products themselves—has its own materials characteristics that can be tallied and assessed during the product lifecycle.

PTC's Solution for Materials Compliance

Of all of the cPDm solution providers CIMdata tracks, PTC has made the most aggressive moves in this space. PTC provides a materials compliance platform that includes support for the new Conflict Minerals law. The compliance platform can be deployed as a standalone offering or as part of an integral PTC PLM solution. The PTC Materials Compliance solution offers proven capabilities, dating back to functionality originally built by Synapsis Technology, a leader in the regulatory compliance market before its acquisition by PTC in 2008. PTC can readily connect PTC Materials Compliance with other enterprise systems as required,

including enterprise resource planning (ERP) and product lifecycle management (PLM) platforms from other PLM providers.

Unlike those solutions found in other categories of conflict minerals offerings, the PTC Materials Compliance solution embodies a deep understanding of products and product structure. This supports data capture, analysis, and reporting at the supplier, part and product levels, which better represents the buyer/supplier relationships for communication and subsequent action. The PTC Materials Compliance solution also natively supports the different roles and relationships in the market and the supply chain, a capability more common in the PLM market space than in the other markets discussed above.

According to PTC, the PTC Materials Compliance Solution delivers capabilities to address each of the five steps in the SEC conflict minerals compliance process:

1. Determine Applicability—Identify suppliers, parts and products with 3TG based on supplier declarations, supplier classifications, product commodity codes, and/or other material compliance disclosure information.
2. Perform Reasonable Country of Origin Inquiry (RCOI)—Automate the request, receipt, and validation of supplier declarations.
3. Conduct Supplier Due Diligence—Systematically process supplier responses, and manage and interpret relevant information to conform with the SEC/OECD due diligence framework.
4. Determine Conflict Mineral Status—Assess supplier, part, and product level status.
5. Report—Leverage system reports and information to support SEC filing and customer reporting requirements, and to streamline audit processes

The PTC conflict minerals solution automates the request, response and validation of supplier conflict mineral disclosures and leverages industry standards, including the EICC/GeSI Conflict Minerals Reporting Template. Supplier responses are systematically processed to compile the necessary data and prepare the necessary reports. Having a solution integral with product development enables real-time assessment of products throughout the product



Figure 2—PTC Materials Compliance Dashboard Highlights Compliance Issues

lifecycle, including during the new part introduction process and supplier qualification. Once the data is gathered, PTC Materials Compliance includes significant out-of-the-box and custom reporting capabilities that will help decision-makers address their materials compliance issues quickly and effectively. This solution was released in April 2012 and offers flexible procurement and deployment options, including traditional, on premise; cloud based; and Software-as-a-Service options. The solution is currently in use by leading manufacturers across industries.

Conclusion

On which side of the tipping point is your organization? Time is short, with May 2014 soon upon us. All manufacturing companies should be taking steps today to comply with the conflict minerals law. While a number of solutions exist, the PTC Materials Compliance offering has shown its ability to help companies of all sizes address their compliance needs. PTC took steps to enhance this offering to meet this urgent need out of the box, either standalone or integral with PLM mode. While this new solution focuses on the pressing need around Conflict Minerals, the PTC Materials Compliance platform also provides the basis to meet other existing and future compliance requirements head-on in the battle for global success.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website at <http://www.CIMdata.com> or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.