Regulating Conflict Minerals: A Supply Chain Perspective

Caught between compliance, conscience and cost, companies must start formulating their conflict minerals strategies now

By Editorial Staff

In early November 2010 a tin industry group threw up a warning signal on so-called "conflict minerals" that sent prices higher on key metals used in the electronics supply chain. The group, ITRI, announced on November 8 that a project to keep conflict minerals out of the supply chain was unlikely to meet a March 31, 2011, deadline to put in place an effective system of "tagging" to track-and-trace the country of origin for these minerals. As a result, UK-based ITRI said, tin and tantalum coming from the affected region – the Democratic Republic of Congo (DRC) and adjoining nations – were likely to face an embargo.

The markets took that as a signal that supplies of the metals could tighten worldwide. In fact, immediately following ITRI's announcement, prices on tin started ticking upwards as buyers absorbed the news and sought to lock in supplies ahead of the possible loss of metals supplies from the DRC and surrounding nations. Prices on tantalum were expected to reach new highs by the end of the year as companies scoured the market for alternative sources of supply.

ITRI's statement and the market's reaction exemplify the conflicting pressures and risks facing companies in the electronics supply chain and beyond that rely on tin, tantalum, tungsten and gold, the four commonly cited "conflict minerals." Enterprises in the US face regulatory deadlines in 2012 for being able to report on whether their products contain conflict minerals sourced in the DRC, and yet it remains unclear how they will gain the necessary visibility that deep into their supply chains. At the same time, advocacy groups are continuing their efforts to increase public pressure on companies to exclude conflict minerals from their supply chain. And the conflict minerals regulations tucked into the back of the massive Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, signed into law July 21, 2010, are already having an impact on the cost of these minerals on the broader market.

Caught between compliance, conscience and cost, companies should already be formulating their "conflict minerals" strategies now to mitigate the impacts and risks likely to result from the law in 2011 and beyond. However, a recent survey of nearly 200 US and global enterprises revealed that many companies are not even aware of the conflict minerals issue, let alone the impending regulatory mandates. This article reports on the results of this survey and also offers a strategy for beginning to prepare for the legal requirements imposed by the Dodd-Frank Act.

Background: Conflict Minerals Primer

Supply & Demand Chain Executive has covered the conflict minerals

issue in conjunction with IHS in articles and Web conferences, and links to those resources can be found at www.SDCExec.com/CMUpdate. These materials provide extensive background on the issue, the Dodd-Frank Act and the industry's response to the law's requirements.

In brief, the Democratic Republic of the Congo, located in Central Africa, is about 900,000 square miles in size, or about as big as Alaska and Texas combined. With a population of approximately 71 million, the DRC is nearly twice as populous as California. The country is, by all accounts, fantastically wealthy in terms of natural resources, with estimates of its total mineral wealth ranging in value from $10 trillion to $24 trillion. However, its GDP of $22 billion is about equal to that of Vermont or Wyoming.

The country has been in a state of civil war for the past 15 years in one form or another. The result of this conflict has been the deaths of more than 5 million people by 2008, with 45,000 deaths still occurring monthly, according to reports from the region. Armed groups that include the Congolese Army and the Democratic Forces for the Liberation of Rwanda, or FDLR, are viewed as the main, but not the only, players in the minerals trade. These and other armed groups control 12 of the 13 major mines—more than 50 percent of the 200 total mines—in Eastern Congo, the primary source for conflict minerals. Estimates are that the different armed groups involved with conflict minerals derive between 15 percent and 75 percent of their revenues from the mineral trade.

The armed groups involved in the minerals trade often resort to forced labor, including child labor, to staff their mines, and reportedly force miners to work 48 hour shifts. One of the most disturbing aspects of the conflict has been the widespread use of sexual violence against local populations and workers in and around the mines as a form of coercion and control. The violence has prompted a number of non-governmental organizations, or NGOs, to become involved in promoting solutions to the conflict and the human rights issues within the country. The groups Global Witness and The Enough Project have led these efforts, which have included stepping up pressure on manufacturers – particularly well-known consumer electronics brands – to eliminate conflict minerals from their supply chains.

More than 50 percent of companies will need to implement a program to identify the country of origin of raw materials used to ensure compliance. That is a brand new requirement without precedent in the supply chain.

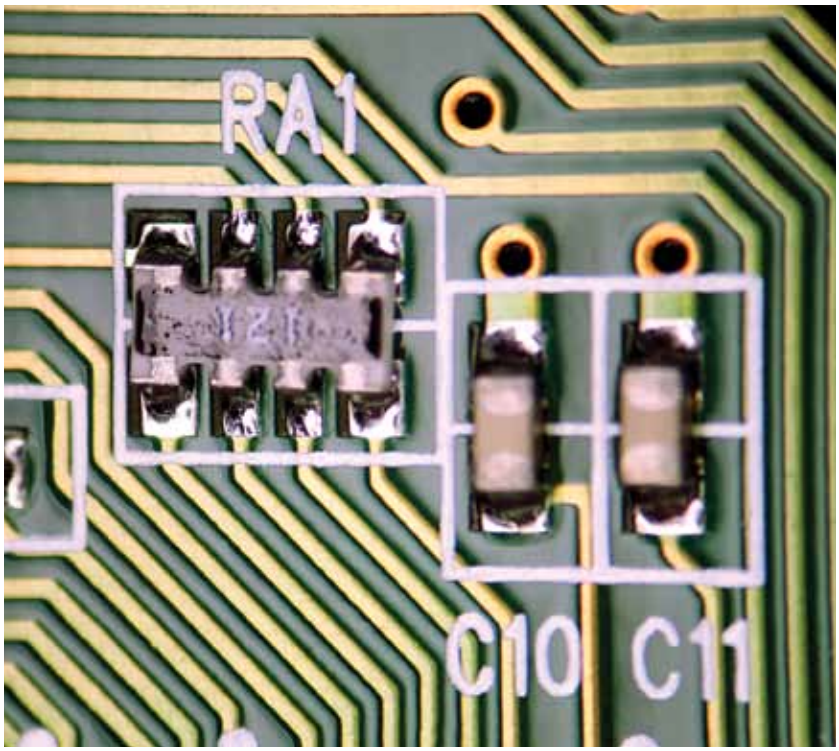
The Law: Dodd-Frank Act, Section 1502

The US Congress initially took up the conflict minerals issue in a 2009 bill sponsored by Senator Sam Brownback (R-KS). The bill appeared to die in committee but was resurrected later that year in the House, eventually being added as an amendment to the Senate financial reform bill and passing both houses of Congress. Section 1502 of the bill, signed by President Obama on July 21, 2010, specifically addresses conflict minerals. The stated aim of the legislation is not to ban the use of these minerals if they originate from the DRC, but rather to ensure that the minerals do not come from conflict areas of the DRC or would otherwise help fund the conflict.

To this end, Section 1502 requires annual disclosure to the Securities and Exchange Commission (SEC) regarding whether potential conflict minerals originated in the DRC or an adjoining country. If the minerals originated in these countries, companies must report on the due diligence measures that they utilize to identify the source and chain of custody. These measures are expected to include an audit by an independent professional audit company. In the SEC report, companies also must submit a description of products that they manufacture that are not DRC conflict-free. Products are conflict-free if they do not contain minerals that directly or indirectly finance or benefit armed groups in the DRC or an adjoining country.

Manufacturers that use conflict minerals originating in the DRC or an adjoining country are still free to use these minerals. However, they may face liability for failing to disclose their sourcing practices accurately. The Act will also impact manufacturers that are not subject to SEC reporting requirements but whose use of conflict minerals is "necessary to the functionality or production" of their products. Specifically, the US Comptroller General must submit an annual report to the U.S. Congress identifying such companies beginning in July 2012.

Of course, this is just a high-level summary of the requirements of the bill, and companies that might be subject to the Act's provisions would



be wise to both read the full six pages of Section 1502 (a link to the text of the law will be provided at www.SDCExec.com/CMUpdate) and refer their peers and colleagues to the law as well. The law imposes specific legal requirements, but is also an evolving issue, with significant regulations yet to be issued and/or subject to change over time. Cross-functional attention to the issue and professional legal assistance will be necessary to ensure compliance.

The Survey: Awareness and Preparedness

After the law's passage in July, *Supply & Demand Chain Executive* and IHS initiated a research project to understand awareness of the conflict minerals issue and Dodd-Frank legislation, benchmark preparedness to meet the law's requirements, assess supply chain exposure to pending legal requirements, and identify strategies for dealing with Dodd-Frank across the supply chain. That research included a survey of executives at 190 US and global enterprises, conducted from July through September 2010. The research also included interviews with nearly two dozen industry practitioners, analysts covering the electronics supply chain, and subject matter experts at IHS with extensive experience dealing with compliance and supply chain issues.

Perhaps the most startling finding from the survey was that only slightly more than half of the respondents (55 percent) were even aware of the conflict minerals law prior to taking the survey. "This is a regulation that 'snuck up' on a lot of people," says Scott Wilson, a senior content strategist at IHS who works with clients on information and insight solutions to address challenges in the supply chain such as component management, supply chain risk mitigation, counterfeit parts and environmental compliance. Wilson notes that companies like the 45 percent of respondents who were just learning about conflict minerals should begin immediately on the research, risk analysis and strategizing that must be done in order to understand the level of effort needed for compliance with the law. What about the respondents who already were aware of the regulation? "These folks know they have their work cut out for them, too," says Wilson. "Most realize this represents a fundamental change in the information they need and how they will need to collaborate with their supply chains."

The extent of the challenge for companies in meeting the requirements of the law can be seen in two other significant findings from the survey. First, when asked whether their companies use the various potential conflict minerals in their products, the affirmative responses ranged from 45 percent for coltan (tantalum) to 63 percent for cassiterite (tin). "This tells us that the use of potential conflict minerals is widespread," says Wilson. "But it also tells us that more than 50 percent of companies will need to implement a program to identify the country of origin of raw materials used to ensure compliance. That is a brand new requirement without precedent in the supply chain."

What's more, Wilson points to the 93 percent of respondents who said they believe that identifying these minerals in their products, and their origins, will not be easy, including 42 percent who said that it would be "very difficult" to do so. "People know this is going to be difficult," Wilson says, "and they are unsure of how to collect this information. It might sound easy — just ask your suppliers; but, in these truly early days it will be hard to get responses immediately, let alone responses you can have confidence in. But starting the process and asking your immediate suppliers is the first step."

Taking Action: Challenges and Strategies

Opinions were almost equally divided on how the conflict minerals issue compares with the impact on the supply chain of the European environmental regulations RoHS and REACH – a useful point of reference since many companies already have been dealing with these regulations for a number of years. A combined 37 percent said conflict minerals regulations would have the same or higher impact as RoHS/REACH, while 33 percent say it will have less of an impact, and almost a third are unsure. However, as one supply chain professional noted in a comment on this question, "[The] requirement to report annually to the SEC and to submit a due diligence plan (audited and certified by an independent 3rd party) will generate more high level attention [within the enterprise] compared to RoHS/REACH issues." Another respondent pointed out that while RoHS and REACH offered long lead times to prepare for their impact over a number of years, Dodd-Frank imposed much tighter timelines. "Very complex discovery and reporting process, too little time to react, and restriction of these materials [put] the EEE [electrical, electronic, and electromechanical] supply chain at risk," the respondent summarized.

Asked about the top two barriers to meeting Dodd-Frank's reporting requirements, respondents most frequently cited the technical feasibility of tracking and tracing the affected materials (37 percent), followed by the cost of compliance (28 percent) and lack of third-party enablers (24 percent). On the other hand, asked about the top two drivers that would prompt action on conflict minerals, 42.5 percent and 38.3 percent, respectively, cited regulatory compliance and customer requests, greatly outpacing other potential drivers like fear of market share loss, risk to brand from negative exposure, or risks to continuity of supply. One executive responding to the survey stated plainly that compliance and his employer's reputation as an ethical company is where the conflict minerals risk exposure lies. "Our benefit is to make our customers' lives easier," the executive wrote. "End consumers shouldn't be burdened with the task of discerning which products are ethical."

> **"People know this is going to be difficult, and they are unsure of how to collect this information. But starting the process and asking your immediate suppliers is the first step."**
>
> — Scott Wilson, senior content strategist, IHS

The reaction of the market to the passage of Dodd-Frank suggests that the risks to sources of supply for key components – as well as to margin – are real. Greg Wood, senior product manager for electronic component solutions with IHS, points out, for example, that past disruptions in the tantalum market have had ripple effects through the supply chain. "We had an instance where there was a shortage of tantalum capacitors based on a fire at one of the raw material manufacturing facilities in China that caused some of tantalum manufacturers to exit that market," says Wood, who has nearly a decade of experience managing critical component information solutions and overseeing global supplier sourcing for various manufacturers. "It wouldn't be surprising to see similar material shortages as a result of the DRC legislation."

Given these risks, companies would be advised to pursue a proactive strategy based on product information management, risk mitigation and supply chain optimization in order to prepare for the "bullwhip" effects that Dodd-Frank may send rippling through the supply chain, says Brian Schirano, a subject matter expert with IHS and a veteran of nearly 20 years in the electronic components industry. The alternative – approaching conflict minerals as an isolated compliance mandate – is a pathway to higher costs and complexity, Schirano argues. "Companies that rank consistently high in 'top 25 supply chain' listings recognize that one-off compliance projects don't deliver," he says.

Leaders, on the contrary, will pursue comprehensive compliance strategies that provide an aggregation of item-level data across the enterprise as a preliminary step toward either verifying compliance or redesigning parts and products for compliance where necessary, Schirano continues. This approach not only can result in increased supply chain efficiencies and reduced total costs, but also can accelerate time to market by moving to a smaller number of approved and preferred vendors, allowing engineers to focus on design issues rather than searching for parts. "Also," Schirano concludes, "manufacturers that gain comprehensive visibility into their parts lists and leverage that visibility to create approved vendor lists and prepared parts lists can see higher material availability and reduced supply chain risk." ■