Conflict Minerals and the Importance of Transparency in Supply Chain Management

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In today's global economy, products on the shelves of local retailers are often manufactured, assembled or produced in factories thousands of miles away and built with materials and components sourced from virtually anywhere in the world. The globalization of manufacturing has played a significant role in the economic development of developing countries and regions and has led to more efficient and cost-effective manufacturing, resulting in lower prices for many consumer goods.

However, the global sourcing of materials presents a range of new challenges for manufacturers, retailers and consumers. Since materials can come from virtually anywhere in the world, securing complete and accurate information about the source and handling of those materials has become an increasingly complex process for manufacturers attempting to monitor and control critical aspects of their material supply chain.

One significant example of the consequences stemming from the lack of supply chain transparency is the case of so-called conflict minerals originating from the Eastern Provinces of the Democratic Republic of Congo (DRC) in Africa. Embroiled in a deadly civil war for decades, the DRC is rich in important industrial minerals, and the mining of those minerals has become an important focal point in the conflict. For its part, the United States has imposed new reporting requirements effective in 2013 on certain companies that use these conflict minerals, which will include information on their origin and chain of custody throughout the supply chain.

This UL white paper provides readers with an overview of the issues and challenges related to the use of conflict minerals in manufactured products. The paper begins with background information on the origins and sources of conflict minerals and discusses the consequences stemming from the use of conflict minerals. The paper then briefly reviews regulations recently enacted by the U.S. Securities and Exchange Commission (SEC) applying to manufacturers and other companies that potentially use conflict minerals in their products, and details a due diligence process that can aid in the identification of conflict minerals and other potential issues in the supply chain. The paper concludes by discussing compliance with conflict mineral rules in the context of responsible supply chain management and the potential benefits of increased supply chain transparency.

Conflict Minerals Background

Minerals are essential to a broad range of industrial processes, and are integral to components in thousands of commercial and consumer products. As materials produced by forces of nature, deposits of minerals can be found all over the world. For example, gold is mined throughout Africa as well as in China, Russia, Australia, Peru and the United States. Tin is extracted from mines located primarily in China and Indonesia, but can also be found in Brazil, Bolivia, Russia and Malaysia.

In recent years, there has been increased attention to connections between the mining of minerals and civil conflicts and human rights abuses. Because minerals are an important economic resource, parties who control their extraction hold potentially significant economic power. Especially in developing economies, this economic clout can result in the exercise of coercive political influence and contribute to the extension of conflicts.

In this context, the term "conflict minerals" can broadly be applied to any minerals originating from geographic areas where ongoing armed conflicts have adversely affected working conditions, leading to human rights abuses. However, the term is specifically applied to minerals extracted from mines in the Eastern Provinces of the DRC and often transported through neighboring countries, including Burundi, Rwanda and Uganda. In this region, collectively known as the Great Lakes region, state authority is fragile at best, and the effects of prolonged civil wars and widespread unemployment are fertile ground for worker exploitation and coercion in addition to other human rights abuses.

In particular, the artisanal and small scale mining sector in the DRC is reportedly characterized by little or no compliance with national laws and regulations regarding working conditions or health and safety standards. Instances of forced or compulsory labor, including forced child labor and extortion, as well as the absence of adequate safety and security measures at mine sites, are also common. These practices appear to be more prevalent in the eastern section of the country, especially in North Kivu and South Kivu, where armed groups as well as criminal elements of the Congolese army are said to be actively engaged in the illegal exploitation and trade of natural resources.[1]

Uses of Conflict Minerals

Those minerals most affected by armed conflict in the DRC include cassiterite (tin), columbite-tantalite (tantalum), wolframite (tungsten) and gold (Au). Collectively known as "Au and the 3Ts," these metals are the focus of governments and human rights organizations worldwide, as well as recent U.S. regulatory efforts to control the flow of conflict minerals originating from the DRC and the Great Lakes region through the identification of material sources and supply chain monitoring.

Tin, tantalum, tungsten and gold are used in a wide range of commercial, industrial and consumer products, including jewelry (gold), consumer and medical electronic devices (all four metals), lighting products (tungsten), packaging (tin), and outdoor tools (tungsten). Specific uses by metal include the following:

- **Tin —** Tin is used in joint solders and as a coating oxide for components found in consumer and medical electronic devices and solar energy panels as well as in automotive components. Tin is also used in cans for food packaging
- **Tantalum —** Tantalum is used in capacitors and semiconductors found in consumer and automotive electronic devices. It is also used in capacitors, clips, implants and alloys found in implantable medical devices, such as pacemakers, and jet engines
- **Tungsten —** Tungsten is used in wires and circuits found in consumer and automotive electronic devices. It is also used for wires and filaments in consumer goods, such as lamps and luminaires, as well as in tubes found in X-ray machines and dental instruments
- **Gold —** Aside from its use in jewelry (about 80% of all gold used), gold is used as a coating for electrical contacts and wires in computers and automotive electronic devices. Gold is also used as a durable coating for highly specialized applications

Table 1 provides a detailed breakdown of some of the many kinds of components and products containing tin, tantalum, tungsten or gold.

MINERAL	COMPONENT	PRODUCTS
Tin: http://www.itri.co.uk/	Solders, Joints, Oxide Solders Coating Oxide	• Electronics: Cell phones, laptop, touchscreen, others • Automotive: Car radiators, fuel tanks, battery, brake pads, others • Food: Tin cans • Energy: Solar panels • Medical devices
Tungsten: http://www.itia.info/	Wires, Electron Emitters, Tubes, Alloys Circuits, Coating Wires, Filaments Tubes Cemented Carbides	• Electronics: Cell phones (vibrating function), printers, laptops, TV, other • Automotive: Electronic appliances, gear teeth, car horn, others • Consumer goods: Lamps, microwaves, pen balls, glass with light-control technology, golf clubs, hiking gear, bicycles, ceramic glass • Medical devices: X-ray machines, dental instruments • Production: Metal cutting tools, mining tools, drilling tools • Others: Military ammunition, grenades, missiles
Tantalum: http://tanb.org	Capacitors, Semi-conductors, Refractive Index-glass Capacitors, Semi-conductors Capacitors, Clips, Implants, Alloys Super Alloys Carbides, Alloys	• Electronics: Cell phones, laptop, printer, camera lenses, game consoles • Automotive: Most electronic appliances: audio systems, GPS, parking sensors, wiper systems, ignition system, fuel pump, central locking, etc. • Medical: Implantable devices, e.g., pacemakers, prosthetic devices, others • Aerospace: Jet engines • Production: Cutting tools; pipes, tanks, valves (used in chemical equipment for corrosive liquids)
Gold: http://www.gold.org	Coating of Electrical Contacts, Wires Minimal Quantities of Gold Coating	• Jewellery (80%) • Electronics: Computers, USB cables • Automotive: Fuel cells, board electronics • Medical devices: Implants, dental applications, cancer treatment, microsurgery • Others: Cockpit windows (de-icing purposes), helmets of astronauts, nanotechnology, jet engines

Table 1: Examples of components and products contain potential conflict minerals

Consequences from the Use of Conflict Minerals

The use of minerals sourced from conflict-affected areas potentially supports continued human rights abuses and unsafe working conditions in the DRC. Consumer activists worldwide are increasingly demanding that producers of products employ material sourcing and manufacturing practices that protect natural resources as well as the health and safety of workers and citizens. At the same time, companies dealing directly with consumers and other end-users are requesting information from suppliers about their supply chain management practices, including practices involving the sourcing of materials.

In response, a number of leading electronic companies have started implementing comprehensive programs to eliminate conflict minerals from their supply chains and to assist the DRC in the development of a "clean" minerals trade.[2] Other major corporations are taking steps to implement responsible sourcing programs that identify and address origination and supplier issues of concern to their customers. Companies that lag in the implementation of such programs or fail to adequately address source and supply chain inquiries from customers potentially place themselves at a competitive disadvantage and may also expose their brand reputation to unnecessary risk.

Failure to address the use of conflict minerals has potential legal consequences as well. Beginning Jan. 1, 2013, the use of conflict minerals by certain U.S. manufacturers will be subject to strict reporting requirements under SEC regulations (see below). In addition, a number of states, including California and Maryland, have implemented laws requiring companies to demonstrate compliance with SEC requirements as a condition for doing business with those states. Other states, including Massachusetts and Rhode Island, are reportedly considering similar legislation.[3]

U.S. Conflict Mineral Disclosure Requirements Under SEC Regulations

Amid concerns that the illegal extraction of and trade in conflict minerals helps to finance continued fighting in the DRC, the U.S. Congress enacted Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which was signed into law by President Obama in July 2010. Section 1502 of the Act directed the SEC to issue rules requiring certain companies to disclose their use of tin, tantalum, tungsten and gold extracted from mines in the DRC and its adjoining countries. The SEC issued final rules consistent with its obligations under the Act on Aug. 22, 2012.

Under the SEC conflict mineral disclosure rules, publicly traded companies must disclose their use of tin, tantalum, tungsten and gold, and whether the use of those minerals is "necessary to the functionality or production"[4] of products that are either manufactured directly by the company or manufactured under direct contract to the company. Companies that fall under the scope of the SEC's requirements must conduct a reasonable inquiry into the country of origin of the specified minerals to determine whether those materials originated in the DRC or an adjoining country. Based on the information obtained in the inquiry, companies are then required to take one of the following actions:

- If a company knows that the minerals did not originate from the DRC or an adjoining country, or has no reason to believe that the minerals may have originated from the DRC or an adjoining country, or if the company knows that minerals are from scrap or recycled sources, it must disclose its findings, along with a brief description of the inquiry, on SEC Form SD
- If a company knows or has reason to believe that the minerals may have originated in the DRC region, and also knows or has reason to believe that the minerals may not be from scrap or recycled sources, it must conduct a due diligence investigation regarding the source and the chain of custody of the minerals, and file a Conflict Minerals Report as an attachment to SEC Form SD

In either case, SEC rules require companies to make their filing available on their website and to provide their website address on Form SD.

Affected companies must file reports with the SEC annually, with the first disclosure report due on May 31, 2014, for activities during calendar year 2013. Subsequent annual reports are due on May 31st each year, covering activities during the preceding calendar year.

Mapping a Course of Action for Compliance and Supply Chain Transparency

For those companies that use minerals originating from the DRC or an adjoining country, compliance with the due diligence provisions of the SEC's disclosure and reporting requirements regarding the use of conflict minerals requires companies to "exercise due diligence on the source and chain of custody of their conflict minerals." Further, "the due diligence measures must conform to a nationally or internationally recognized due diligence framework, such as the due diligence guidance approved by the Organization for Economic Co-operation and Development (OECD)."[5]

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas[6] presents a risk-based, due diligence framework for documenting the source and chain of custody of conflict minerals. Aside from being explicitly referenced by the SEC, the framework found in the guidance document has also been endorsed by the ministers of the OECD Member States as well as the governments of the DRC and its adjoining countries.

The OECD framework includes the following components:

- **Establish Strong Company Management Systems —** Companies should adopt a policy for the acquisition of minerals originating from conflict and high-risk areas and actively communicate the policy to suppliers and the public. In addition, a chain of custody or traceability system should be established, with mechanisms to detect risks. Finally, company management structure must be aligned with due diligence efforts
- **Identify and Assess Risks in the Supply Chain —** Companies should conduct a thorough analysis to identify potential gaps between supply chain management policies and principles and current practices. These gaps should then be assessed for potential adverse impacts in the mineral supply chain
- **Design and Implement a Strategy to Respond to Risks —** Companies should develop a risk management plan that addresses adverse impacts when they occur as effectively as possible. The plan should monitor and track the results of risk management efforts, and communicate actions and results to appropriate senior management personnel. Companies should also undertake follow-up assessments as appropriate
- **Conduct Independent, Third-Party Audits of Supply Chain —** Companies should retain independent third-parties to conduct scheduled audits of their internal due diligence processes. Where appropriate, the resulting audits may be subject to verification by an independent mechanism
- **Report on Supply Chain Due Diligence —** Companies should publicly report their supply chain due diligence policies and activities, though corporate annual or social responsibility reports, or through other mechanisms as appropriate

Beyond Conflict Minerals: The Benefits of Responsible Supply Chain Management

It is important to note that not all minerals extracted from mines in the DRC are the byproduct of unfair or exploitive labor practices or unsafe working conditions. Furthermore, many mine sites are not located in a conflict-affected area and have no links to armed groups. Indeed, efforts are already underway in the DRC and Rwanda to implement mining programs that support material traceability efforts, and these mines are providing jobs and economic support to thousands of workers. Minerals in and of themselves are not the cause of the conflict in the DRC. Corporate procurement policies that ban the purchase of all minerals from the DRC regardless of their actual source undermine good faith efforts to produce minerals and metals in conditions that are conflict-free and promote economic development.

The implementation of a due diligence process, such as that outlined in the OECD guidance document, can help to appropriately address origination and chain of custody issues related to conflict minerals, and support efforts to comply with SEC disclosure and reporting requirements. Although focused on minerals sourced from conflict-affected areas, the OECD framework is more broadly applicable to responsible supply chain management for all materials, as it describes basic elements of supply chain due diligence. These elements can be applied regardless of material and its origin, and can serve as the foundation for a robust corporate responsible supply chain management program. Companies with such a program in place will be better positioned to deal with the prospect of future regulatory requirements that may affect the use of other raw materials.

But responsible supply chain management is not just a tool to achieve compliance. In practice, it can bring transparency to supply chain activities, providing manufacturers with timely and objective information about supply chain issues that can adversely affect future production. Supply chain transparency can also more quickly identify supply chain inefficiencies, allowing manufacturers to make adjustments to increase production flexibility and profitability. A transparent supply chain management system can also speed time to market for new products, providing a significant advantage in an increasingly competitive marketplace.

Finally, as previously noted, commercial customers and consumers alike are setting higher expectations for the companies with which they do business. Responsible supply chain management will soon no longer be an option but an expectation from all but the least demanding customers. Companies with effective responsible supply chain management systems will be best positioned to meet those expectations, thereby distinguishing their brand and their reputation.

Conclusion

The use of certain minerals from conflict-affected and high-risk areas around the world is gaining increased attention from regulators, buyers and consumers who are concerned about human rights and working conditions. U.S. reporting requirements regarding the sources of tin, tantalum, tungsten and gold will come into effect in 2013, and affected companies must adopt a due diligence process that provides accurate information on the sources and chain of custody of these minerals. However, efforts to comply with these requirements can serve as the basis for a responsible supply chain management program that can enhance supply chain transparency, potentially increasing production efficiency, corporate profitability and customer loyalty.

UL's responsible sourcing experts have developed a range of services to help companies address the challenge of identifying and tracking potential conflict minerals in their supply chain. For further information about the use of conflict minerals and UL's services in responsible supply chain management, contact Monica Puksta, senior manager, responsible sourcing program development, at Monica.Puksta@ul.com.

[1] See, for example, reports by the UN Group of Experts Concerning the Democratic Republic of the Congo, 2004-2012. Web, 7 November 2012, www.un.org/sc/committees/1533/egroup.shtml

[2] "Taking Conflict Out of Consumer Gadgets: Company Ranking on Conflict Minerals 2012," Enough—The Project to End Genocide and Crimes Against Humanity, August 2012. Web, 2 November 2012, http://www.enoughproject.org/files/CorporateRankings2012.pdf

[3] "Conflict Minerals...Does Compliance Really Matter? Ask California, Australia and the EU," KMPG, 2012. Web, 7 November 2012, http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/dodd-frank-series/Documents/conflict-minerals-compliance-matter.pdf

[4] 17 CFR Parts 240 and 249b, "Conflict Minerals," Final Rule, 22 August 2012, P. 150, U.S. Securities and Exchange Commission. Web, 2 November 2012, http://www.sec.gov/rules/final/2012/34-67716.pdf

[5] "SEC Adopts Rule for Disclosing Use of Conflict Materials," U.S. Securities and Exchange Commission Press Release, 22 August 2012. Web, 2 November 2012, http://www.sec.gov/news/press/2012/2012-163.htm

[6] "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas," The Organization for Economic Co-operation and Development (OECD), 2011. Web, 31 October 2012, http://www.oecd.org/daf/internationalinvestment/guidelinesformultinationalenterprises/46740847.pdf