

Managing Product Lifecycles with Evolving Conflict Mineral Regulations

CIMdata Commentary

Key takeaways:

- *Conflict minerals rules in the Dodd-Frank Act require companies to assess, track and report the usage of tin, tantalum, tungsten, and gold (3TG) in their global supply chains, yet another in a series of important compliance mandates*
- *Providing conflict mineral traceability is required for many industries, and managing that data is challenging*
- *Along with material compliance data, PLM can provide a necessary engine for early traceability for 3TG utilization in product designs*
- *Conflict minerals regulations highlight the need for a versatile framework that can manage similar needs in the future*

What are Conflict Minerals

Conflict minerals are specific minerals whose sale is supporting an on-going conflict. In this case, they include cassiterite (tin), wolframite (tungsten), coltan (tantalum), and gold ore, which are extracted from the Eastern Congo and passed through a variety of intermediaries before being purchased by multinational companies. These minerals are mined and sold under the sponsorship of various armed militant groups to prolong the on-going violence in the conflict zone. The idea behind restricting conflict minerals is to prevent profits from their sale by tracking and prohibiting their use. Without this source of financial support, the fighting and human rights violations will eventually be stopped or reduced. The challenge is that demand for such minerals is growing as they are critical for many goods that our society buys in great quantities, such as mobile phones, laptops, other popular electronic devices, and many other products.

There have been various international efforts made to reduce the trade of conflict minerals. In the US, the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act requires manufacturers to audit their supply chain and report on any conflict mineral usage. More legislation is likely to arrive in 2015.

Today, most companies, as a part of Corporate Social Responsibility initiatives, do a Reasonable Country of Origin (RCOI) evaluation. Full transparency to the minerals sourcing trail is needed to ensure that conflict zone sourcing is avoided. All companies involved in manufacturing and the supply chain, from OEMs to component manufacturers, must determine that their smelter is conflict-free, or use a smelter from a conflict-free consortium. This can get complicated when trying to balance the needs of business and the risk of non-compliance. It is likely that more industries, more minerals, and expanded conflict zones will make this even more complex in the future.

Most companies audit and report on their suppliers voluntarily. Without the proper tools to audit and report the status of suppliers, it becomes very difficult to track this information. CIMdata believes that what is now a voluntary activity today may become a mandatory requirement in the future, and businesses will be hampered without a method to track compliance.

How to Address Conflict Minerals

Most of the material information can be captured in early stages of the product lifecycle and reside in PLM. However, this requires a combination of additional supply chain information and PLM integration. Identifying the products and parts using 3TG minerals, tracing its supply chain, and reporting the exceptions can only be achieved with a flexible PLM framework.

Wipro, a leading global engineering and information technology services company, has developed a PLM framework that provides the traceability needed to assure compliance for conflict minerals. It provides three layers of support:

- Tactical—Early identification of potential source of utilization of conflict minerals.
- Operational—Framework and process to collect and roll up the data. This includes tools aligned to the regulatory framework.
- Strategic—Reducing the risk for enterprises due to non-compliance and improving the brand by helping the global community.

With such a framework, companies are able to manage the traceability of the conflict minerals used in their products and information related to material source with confidence. Currently, Windchill, Agile, ENOVIA, and Teamcenter are the PLM platforms supported by this framework. The framework can be applied to these PLM platforms to manage traceability and a view of the status of conflict minerals and updates in real time.

CIMdata believes that a flexible compliance management solution will be needed by many manufacturers in the future, and could potentially provide a competitive advantage in industries where conflict minerals continue to be an issue. Companies who respond to the conflict minerals challenge today will be much better positioned for future developments than those who wait.

Conclusion

The challenges for those companies that use conflict minerals will only grow in the future. Legislation that requires compliance with international law will continue to evolve over the next few years. Potentially the issue of conflict minerals could affect business, and even stop production if compliance is not assured.

This solution from Wipro is a good step to assure compliance with conflict mineral regulations. The ability to identify, track, and report on the use of conflict minerals provides just the type of solution that will be needed now and in the future. Their choice to develop a solution that is independent of the underlying PLM platform will benefit users of all the different platforms as Wipro builds their customer base. CIMdata believes this could have a major impact on the ability to get popular consumer products to customers with positive impacts on human lives in conflict-affected zones.

This area deserves continued attention as the scope and legal requirements evolve and result in binding legislation. We applaud Wipro for addressing this challenging area and look forward to continued progress on solutions that support the management of conflict minerals.

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

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