Mary L Shapiro, Chairman
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: SEC Initiatives under the Dodd-Frank Act – Special Disclosures Section 1502 (Conflict Minerals)

Via email: rule-comments@sec.gov

Dear Chairman Shapiro:

The National Association of Manufacturers (NAM) is the nation's largest industrial trade association, representing small and large manufacturers in every industrial sector and in all 50 states. Its membership includes both large multinational corporations with operations in many foreign countries and small and medium manufacturers engaged in international trade on a more limited scale. Our members depend heavily on imported parts, components, and finished products to compete within the U.S. marketplace and abroad. NAM members have a strong track-record of working with the U.S. government to improve their supply chain and compliance practices.

On behalf of America's manufacturers, the NAM is writing to articulate issues and concerns that we believe should be addressed by the Securities and Exchange Commission (SEC) during the rule-making process regarding Sec. 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

I. Introduction

We support the underlying goal of Sec. 1502 to address the atrocities occurring in the Democratic Republic of Congo (DRC) and adjoining countries and are working with other stakeholders to help resolve the problem. We encourage the SEC to implement Sec. 1502 in a manner consistent with the realities of global supply chains, and that acknowledges the facts on the ground in the DRC and the limited control downstream users have on the refiners/smelters and mines. A successful outcome is one which achieves the goals of the statute without unduly burdening legitimate trade. The NAM acknowledges the challenges with achieving this outcome and encourages the SEC to work with all affected industries to understand how the requirements can be realistically implemented across supply chains.

The NAM looks forward to working with the SEC as the agency moves forward with the rule-making. As the SEC embarks on drafting regulations it is imperative that a thorough understanding of the number of products containing tin, tantalum, tungsten, and gold be developed, along with the number of industries affected. Nearly every manufacturing sector will be affected by the legislation and regulations. Some sectors have more simplified supply chains, while most have extremely complex ones. The regulations drafted must account for all sectors and companies subject to the legislation. While much attention has been paid to the electronics sector, the issue is much broader with industries from automotives, medical devices, consumer products, defense, capital goods, to aerospace all affected.

We encourage the SEC to move forward first with a proposed rule to allow for comments from affected stakeholders prior to issuing a final rule. We believe the rule-making should recognize that all downstream users are not similarly situated and thus the requirements should take into account a company's place in the supply chain and control over the product. At the very least the SEC should consider a phased approach that understands that activities and initiatives currently under exploration may not offer deliverables for an extended period of time.

II. Conflict Minerals Disclosure Requirements

Under Sec. 1502, the SEC must promulgate regulations requiring filers to annually disclose whether conflict materials that are necessary did originate within the DRC or an adjoining country. This annual disclosure is to take the form of a report which is required to be posted on the filers' website and include the following elements:

- A description of the products that are not DRC conflict free;
- A description of measures taken by the issuer to exercise due diligence on the source and chain of custody of such minerals, including a certified audit by an independent private sector auditor describing such measures;
- The facilities used to process the conflict minerals;
- The country of origin of the conflict minerals; and,
- The efforts to determine the mine or location of origin with the greatest possible specificity.

As set forth in greater detail in Section V below, NAM urges the SEC to adopt regulations accounting for the considerable challenges to manufacturers when submitting their annual conflict minerals disclosure.

III. Ongoing Initiatives to Create Supply Chain Transparency

NAM member companies are committed to addressing the use of minerals from conflict mines and are participating in a variety of sector-specific initiatives to develop industry-wide protocols for removing conflict minerals from the DRC from supply chains as well as working with international organizations. These initiatives are systematically evaluating supply chains to determine the most effective measures to stop trade in conflict minerals from the DRC.

Through these efforts, many obstacles have been identified and we are working together with non-profit organizations, international organizations, and other groups to overcome them. These efforts, though, highlight the difficulty in crafting a solution and further indicate the need for the SEC to take a measured approach with its rule-making. Moreover, while it is important to look to these initiatives for guidance, the SEC should not create obligations or set standards for companies based on the industry initiatives or activity of international organizations until there is confidence that those processes are workable. Again we reiterate the need to consider a phased approach until the activities currently under exploration create accepted systems or processes.

In particular, much attention is being paid to the effort ongoing at the Organization for Economic cooperation and Development (OECD) – in which the NAM is actively participating to develop guidelines for international enterprises in performing due diligence. However the OECD Framework is subject to a pilot program to determine if the guidelines are feasible and implementable. Following the pilot, amendments may be made based on the pilot results. Since the pilot program does not conclude until after the SEC will presumably issue a final rule, the SEC should consider a high-level framework such as that outlined in this document and not promulgate detailed requirements included in the OECD guidance since the guidance is subject to change.

IV. Manufacturer Supply Chain Challenges

There are three major challenges for downstream users attempting to establish a chain of custody from the mine to the product: 1) identifying which mines are conflict mines – that is, mines whose output is controlled by or taxed by warring factions; 2*)* tracing ores from the mine to the smelter; and 3) tracing conflict minerals from the smelter through complicated supply chains to the finished product. The NAM is not the only voice identifying these problems. Both the State Department and the Enough Project have highlighted these limiting factors as well. Implementation of the legislative language must, therefore, take into account these on-the-ground realities.

The significant challenges associated with tracking minerals originate upstream from the companies that are subject to the new legislation. Fundamentally, more must be done on the ground to: 1) accurately identify mines under the control of rebel groups; and 2) work with refiners and smelters to create a process for validating the source of their minerals to downstream users. Without such assurances from upstream users, it is nearly impossible for downstream users to know the origin of the minerals used in their products or certify with any level of credibility that the products are conflict free.

Most companies purchasing products that may contain conflict minerals only have contact with the first tier supplier or company immediately upstream from themselves. The actual identity of the company in every tier of the supply chain is not known or available to the ultimate downstream user. The ability of downstream users to trace the metal to the mine assumes a supply chain is a transparent, linear process, when, in fact, it is a complex, multi-layered network of trading companies and suppliers where products are sourced and consolidated from multiple countries and manufacturers.

A brief overview of how supply chains operate, along with a description of the many parties comprising a typical supply chain, is set forth in Attachment # 1 to these comments.

Based on the attached overview of supply chains and the specific examples, the requirements on companies should reflect the level of control the downstream company has over the manufacturing operations, the smelter, and the mine. Many of the companies subject to the SEC have little to no control over the design of the components or assemblies purchased or the direct purchasing of metals.

Many companies purchase parts, components, or subsystems based on certain performance capabilities without specifying the materials. Companies further upstream manufacturing those products may not disclose the materials used to manufacture the part, component, or subsystem, as the information can be considered proprietary to the supplier. Disclosure of the materials used to create the item would then reveal the company's trade secrets. For those products where the company does not have access to or control of material content for a given supplier, data collection on the presence of conflict minerals would be nearly impossible for many companies and would create disincentives for companies to sell products to U.S. companies or operate in the United States as the company would have to disclose its intellectual property.

The requirements created by the regulation should take into account these issues and their impact on the ability of companies to collect the information from suppliers who are protected from disclosure by intellectual property laws. Instead the regulations should focus on improving supply chain transparency by working with first tier suppliers to change behavior upstream.

V. Recommendations for the Rule-Making:

NAM member companies submit that the SEC has the discretion to develop regulations which account for the current lack of information and transparency associated with the tracking of conflict minerals. Given the reality of the trade in minerals and because every supply chain is different, we have identified ten diverse areas we believe the SEC should address through the rule-making process to provide clarity to the companies required to submit reports to the SEC.

By adopting the recommendations set forth below, the SEC will sharpen the regulation, target the requirements, and minimize the burden on legitimate trade.

a. Due Diligence: The statute requires filers to report on the due diligence they have exercised over the source and chain of custody of minerals mined in conflict regions, but the statue does not define, set a specific standard, or ask the SEC to create a standard for such due diligence. We encourage the SEC to create a flexible due diligence standard that recognizes that no two supply chains are identical. The SEC should provide guidance to filers on what would constitute reliable due diligence. Each filer needs the flexibility to develop a process appropriate for its supply chain and products. Given the diversity of companies and products impacted, companies should be permitted to determine due diligence plans that are consistent with their supply chains and information available from recognized government sources. This is consistent with work with the international community to develop global supply chain solutions. Such flexibility is also consistent with other areas of law regarding supply chains and human rights issues.

- **Reliable Due Diligence**: We support setting out certain elements of due diligence that will be presumed to constitute a reliable due diligence process in order to give filers guidance they need in order to design compliance programs. A presumption of reliability should exist if a company implements a corporate due diligence plan with the following characteristics:

- Use of information gained through an industry-wide process;
- Creation of a conflict minerals policy and contractual obligations based on the government produced maps required by the legislation;
- Supply chain risk assessment;
- Obligations on suppliers to push the new policies upstream and transmit information downstream through contract provisions;
- Inclusion of a description of policies and procedures to remediate instances of non-conformance with the policy;
- Use of independent third party audits of the due diligence report if sourcing from the DRC or adjoining countries; and,
- Publication of annual reports on the corporate website.

- **Standard of Care:** We also believe it is important to provide guidance on the standard of care companies must meet and what due diligence does not mean. In particular, it is critical for the regulation to recognize that due diligence does not require 100 percent accuracy recognizing that certainty is not possible given the situation on the ground and the fluid nature of supply chains. In light of these challenges, we believe filers should be held to a "reasonable care standard" for executing due diligence.

  Examples of reasonable care include, but are not limited to:

  - Contractual obligations on direct suppliers to exclude conflict minerals from the DRC and adjoining countries from goods supplied to the company subject to the SEC; or
  - Implementation of a risk-based program that uses company control processes to verify that suppliers are providing credible information and pushing contractual obligations upstream; or
  - Participation in or reliance on information gained from an industry-wide or smelter validation process.

  Evidence that conflict minerals from the DRC and adjoining countries may have entered a supply chain despite the exercise of due diligence shall not render a due diligence plan unreliable if the company has exercised reasonable care in conducting its due diligence process.

  Equally important, due diligence over the source and chain of custody should not mean: (1) that a filer must identify all parties between the mine and 1st tier supplier, and (2) determine the materials used for every manufactured item. Rather, the filer should work with its direct suppliers to push requirements to use conflict free minerals/metals upstream. Instead the SEC should acknowledge that a supply chain audit approach of entities throughout the supply chain is acceptable in place of a product-based or materials declaration approach.

b. Create A Safe Harbor/Presumption of Due Diligence based on Reliance upon the Maps from the State and Commerce Departments on the Mines and Smelters. The legislation assigns responsibilities to the Departments of State and Commerce to map conflict regions and to identify conflict mineral processing facilities. In addition, the governments of the DRC and adjoining counties are engaging in an evolving set of measures to suppress trade in minerals from conflict mines. Reliance on government action should be presumed to satisfy the requirement that due diligence be reliable for those elements of due diligence that require working with suppliers to prevent sourcing from conflict mines or refiners using conflict minerals.

c. Scope and Definitions: The SEC needs to clearly articulate who is covered by the regulation and define several critical terms. Below we suggest definitions that we believe achieve the intended goal of the legislation while recognizing the practical issues facing prospective filers.

- **Necessary:** In cases where a filer specifies the use of a conflict mineral, or directly incorporates the conflict mineral into a finished product, the conflict mineral is necessary to functionality or production when:

    - The conflict mineral is intentionally added to the product; and
    - The conflict mineral is essential to the product's use or purpose.

- **Manufacturing:** The SEC should rely upon the commonly accepted government definition of manufacturing. Based upon the U.S. Census Bureau and North American Classification System (NAICS), we suggest defining manufacturing as establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

- **Chain of Custody:** We recognize that this problem has resulted from the lack of governance and security around the mines under the control of rebel groups in the DRC. At the same time, we also recognize that the mine of origin is often very far removed in global supply chains from the manufacturer required to report under the law. In such scenarios, a chain of custody requirement is exceedingly difficult. We expect the requirement for companies to report to the SEC the measures they have taken to exercise due diligence on the source and chain of custody of minerals to mean that persons covered by the Act will report on the measures they have taken to ensure that the mineral processors involved in their supply chains identify the sources of conflict minerals in their products. Once minerals have been processed into metals, individual lots of minerals can no longer be isolated and thus the minerals chain of custody from the mine to the smelter must end at the smelter**.**

d. <u>Transition Rules:</u> To assist companies to create compliance programs, we request the SEC to establish transition rules for implementation of the upcoming regulation. Specifically, we identify three areas where we believe a transition is necessary:

- **For Inventory Already at Smelter:** The regulation should specify that inventory at smelters or processing centers that was obtained prior to a specific date that is sufficiently advanced is not covered by the regulation to allow the institution of reliable smelter audit programs. Efforts to institute a smelter verification program vary greatly for each mineral since some are more advanced than others. If there is no transition rule for materials present at smelters prior to a validation program, all smelted metals for the initial reporting will have to be reported as being of unknown origin as manufacturers will be unable to obtain the information as all minerals are comingled without respect to country of origin.

- **For Products Made from Existing Inventories:** Based on the same rationale for the requested transition rule for inventory already at smelters, we ask for a transition rule for products manufactured with the refined metals already incorporated in finished goods or from conflict minerals already in the suppliers' inventories prior to a date sufficiently advanced. This will allow for the design and implementation of filers' programs to impose identification requirements on their upstream supply chains. Again, absent a transition rule, filers will be forced to identify all products as containing conflict minerals of unknown origin in the initial reporting period.

- **Identification of Conflict Mines in the DRC and Adjoining Countries:** The conditions on the ground in the region are extremely fluid. Control of mines regularly changes. The State Department identified this as a challenge to properly identifying which mines are controlled by rebel groups. Significant time will pass from the extraction of the minerals from the mines to the incorporation of the refined metals into products manufactured in the United States. Therefore it is imperative for the SEC to create a transition rule that recognizes the date of extraction as paramount for determining compliance with the regulation. Moreover, we encourage the SEC to adopt a no transubstantiation rule stating that if a mineral is "clean" when it is purchased, the mineral cannot become "dirty" over time if the situation on the ground changes while the mineral/refined metal moves through the supply chain.

  The ever-changing conditions on the ground support our position that companies should be able to rely upon government issued maps. In order for consistency, companies need a source of information that is authoritative. Without such, suppliers will be relying on various sources of information that may or may not be reliable.

e. Exemption for Recycled Minerals: The regulations should specifically exempt recycled or reclaimed metals, as downstream users have no ability to trace the origin of the original minerals. The traceability of the reclaimed metals is impossible to track due to the various forms of recycling and thousands of consolidators, reclaims, and scrap dealers both domestic and foreign.

We believe Congress intended to regulate ore and metal made directly from minerals mined from the DRC and adjoining countries. Exempting recycled or reclaimed metals does not contradict the congressional intent. Sec.1502 was intended to stop funding the atrocities in the DRC. The DRC rebel groups are funded by operating mines to extract and sell ore, and by extracting tariffs from those transporting ore. The DRC rebel groups do not extract their revenue from trading in reclaim metals. By the time metal becomes reclaim, the rebel groups have already extracted their revenue and do not stand to gain with the use or sale of reclaim metals. To the contrary, the DRC rebel groups would prefer that industry avoid using

reclaimed material since that would reduce the demand for ore and primary metals. Accordingly, reclaim metal was not intended to be covered by the statute and should be excluded with the SEC's regulations.

There are additional concerns. If reclaim is subject to the statute, this will create industry favoritism towards primary metal. When faced with the extreme uncertainties of determining the source of reclaim metal, manufacturers will opt to work with "pristine" or primary metal, since that is relatively easier to track and trace (and therefore remain compliant). This will create an unnatural demand for primary metal and artificially inflate prices for that metal. And, to the extent that the DRC rebel groups are successful at selling their ore, this will result in increased revenue on a per pound basis. *See attachment #4 for more information on reclaim metals.*

f. Creation of a *De Minimis* Standard: The conflict minerals identified by the legislation are used in a vast number of products in varying quantities and for various purposes. It is nearly impossible for companies to trace the minerals in every product in which they are used. We believe a *de minimis* standard is critical. We acknowledge that how such a standard is created and applied is difficult but by working together with industry, the SEC should craft a standard that recognizes the diversity of products that contain the minerals and the uses for the minerals without diminishing the impact of the legislation on the overall cause. Typically, if the legislation doesn't specifically prohibit the agency from creating a *de minimis* standard then it is at the discretion of the agency to do so. We encourage the SEC to develop an appropriate *de minimis* standard.

g. Annual Reporting Requirements: Companies should be required to state their policy on conflict minerals including policies to push requirements to upstream suppliers as well as policies and procedures for remediation of non-conformance if they do use conflict minerals from the DRC or adjoining countries in their manufacturing operations. We believe the disclosure requirements should be narrowly tailored to protect companies from lawsuits for defamation or trade libel and to protect their intellectual property.

While we recognize that the legislation provides guidance on what information is required to be included in the annual reports to the SEC, the guidance lacks specificity and manufacturers would appreciate greater clarity. We encourage the SEC to draft regulations that maximize flexibility for manufacturers in reporting the information.

h. Reconfirm the Audit is of the Due Diligence Plan not the Supply Chain: During the financial reform conference, Congressional staff repeatedly stated that the audit is of the due diligence plan and ***not an audit*** of the supply chain. This clarification should be articulated in the regulation to confirm the requirement.

i. Development of Punitive Measures: Should the SEC develop the punitive measures that could be taken against an individual, we encourage the SEC to consult with industry.

j. Negative Reporting Requirements: The legislation does not create an obligation for companies that are not sourcing from the DRC or adjoining countries to report to the SEC or to maintain transaction-by-transaction records supporting that claim. We do not support creating new requirements outside the four corners of the legislation.

VI. Economic Impact

In response to a request from the SEC for information and data on the economic impact of the legislation, we provide the following outline which identifies possible costs associated with implementation of Sec. 1502. Companies recognize the need for the legislation and are willing to make the necessary changes to their compliance plans to create transparency within their supply chains and prevent sourcing from conflict mines in the DRC and adjoining countries.

We encourage the SEC to implement Sec. 1502 in a manner that minimizes costs without diminishing the intent of the legislation. To minimize the costs U.S. manufacturers will incur to comply with the legislation, the regulation should be narrowly tailored to achieve its goal. As every supply chain is different, not all manufacturers will face the same expense or need to invest in new infrastructure. The list below is based on feedback the NAM received from its diverse membership. Some identified all five expenses for their company while others only identified a subset of the five.

- **Cost of new or revised computer systems and software:** Most manufacturers and suppliers will have to develop new computer systems or revise existing systems to track, store, and exchange data regarding mineral origins. Because of the global nature of supply chains, these systems will need to be available globally, have high storage capacities, and advanced communication and data transfer functionalities. Based on previous changes to supply chain computer systems over the last several years, the cost per company is likely to range from $1 million to $25 million depending on the size and complexity of the supply chain.

- **Cost to evaluate products and supply chain vendors:** Most manufacturers will have to systematically evaluate their product lines to determine if their products contain the conflict minerals. For diverse and large companies this is a tremendous task.

- **Cost to participate in industry wide validation schemes:** In order to have access to information produced by industry-wide or smelter validation schemes once they are operational, companies will have to pay for membership. Annual memberships vary from $15,000 to $25,000 per year per company.

- **Cost of independent third party audits:** Companies providing trade services such as supply chain audits typically charge between $250 and $1000 per hour for their services. Depending on how the service providers create audit schemes for their clients, this has the potential to be a significant cost as well to individual companies.

- **Cost on small and medium sized manufacturers (SMMs):** SMMs will be disproportionately affected by the requirements under this regulation. SMMs will face larger per unit cost increases because of smaller business volumes, more limited resources to produce the required documentation, and less leverage over their suppliers, both foreign and domestic. SMMs do not have the customs and compliance staff typical of larger corporations and companies thus making compliance efforts even more difficult. As required by the Regulatory Flexibility Act, the SEC must provide economic analysis on the impact to small businesses.

Comparison to the European Union (EU) Regulation on Hazardous Substances (RoHS)

In 2006, the EU enacted a regulation banning companies from placing new electronic and electrical equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl, and polybrominated diphenyl ether flame retardants on the European market. According to Technology Forecasters, Inc, the RoHS directive cost the electronics industry more than $32 billion for initial compliance and $3 billion annually to maintain compliance. The study also found the average cost per company was $2,640,000 to achieve initial RoHS compliance and another $482,000 for annual maintenance.

Implementation of Sec. 1502 can be expected to cost at least the same if not more than implementation of the EU RoHS program. RoHS and Sec. 1502 are similar in that they require companies to trace materials used in their products. However, Sec. 1502 is broader in scope: 1) it covers more products and sectors than RoHS; 2) it discriminates against origin as opposed to a ban; and (3) does not include a *de minimis* or other weight based exception for products containing only small or trace amounts of the ores. Companies will have to implement compliance schemes similar but much more expansive than their RoHS programs and thus will incur greater cost. We encourage the SEC to review the cost of implementation for RoHS as the agency crafts the Sec. 1502 regulation. Given the fragile state of the United States economy, implementation of new compliance programs costing tens of billions of dollars will negatively impact competitiveness and cost jobs.

VII. Conclusion

The NAM is committed to addressing the use of conflict minerals from the DRC and adjoining countries and is actively working with many of its members on both a domestic and international level to address the issue. Indeed, NAM member companies are participating in a variety of sector specific initiatives to develop industry wide protocols for removing conflict minerals from supply chains as well as with international organizations.

However, to date, programs for all four conflict minerals from the DRC and adjoining countries do not exist to validate smelters outside the United States. Without full coverage of such programs, companies will not be able to determine if their products contain conflict minerals sourced from the DRC or adjoining countries. Therefore we encourage the SEC to take a measured approach to implementation of its regulations and to phase-in the requirements based on the availability of smelter validation programs.

Please consider the NAM as a resource. We are ready to work with the SEC to develop the regulation and can provide greater information on supply chains as needed.

ATTACHMENT #1

Overview of Global Supply Chains

Conditions on the ground create significant obstacles for companies seeking to comply with the new conflict minerals legislation. It is unclear which mines are controlled by armed groups, and the lack of a system of governance to regulate the mineral trade makes it extremely difficult for downstream users to verify if an item contains conflict minerals from the DRC or adjoining countries.

This attachment provides an overview of the complexity of global supply chains. Some groups not involved in the management of global supply chains have made statements claiming that the supply chain between the refiner/smelter and filer is short and that manufacturers can readily identify the refiner. We hope that after reading this attachment the SEC will better understand that for the majority of manufacturers the supply chain is not short and that those statements by others are not factually accurate.

For a limited number of manufacturers, the supply chain is short and they may be able to readily identify the refiner/smelter but the overwhelming majority of manufacturers is far downstream from the refiner/smelter and is unable to identify it. For companies who are many times removed for the refiner/smelter and cannot identify it, we have proposed a due diligence program laid out in the body of our comments that will allow those companies to comply with the legislation, increase transparency, and prevent suppliers from sourcing from conflict mines and smelters. The following overview supports the statements above and provides the necessary context for understanding the complexity involved.

The Mines

The FY 2010 National Defense Authorization Act tasked the State Department in conjunction with other agencies and the United Nations to produce a map of the mines in the DRC identifying those areas under control of the armed groups. In the report, the State Department stated that the "lack of verifiable data makes it difficult to locate a multitude of mine sites, to establish which mines are active and which are inactive at any given time, and to verify the armed groups that are either present at mines or have access to revenue streams emanating from them." If the State Department, with greater access to information and greater resources in the DRC cannot determine if a mine is conflict or conflict free, how can an individual company? Identification of conflict mines is the first critical part of this legislation and without a map to rely on it is difficult, if not impossible, for a company to craft a compliance program.

Without a clear understanding of which mines are controlled by armed groups, it is nearly impossible for a company to know which mines are acceptable. In order to comply with the new requirements, U.S. companies need to be able to rely upon a State Department map to push the new requirements upon upstream users of the minerals. The State Department's own inability highlights the difficulty ahead for companies.

From Mine to Refiner:

Even if a company is able to determine if a mine is conflict free, there are many other barriers between the mine and smelter that present challenges. According to the Enough Project, the minerals are transported from mines to trading towns and to the two major cities in the region. The minerals are brought by buyer-transporters, moved on the backs of individuals, by large trucks, and/or by planes in sacks the size of small garbage bags, and then sorted by trading houses. The majority of the transporters and trading houses operate in violation of the DRC's mining laws without proper licenses and registration. Export companies then buy the minerals from the trading houses and transporters, process the minerals, and sell them to foreign buyers/international traders. The laws prohibiting exporters from buying minerals from unregistered traders are weakly enforced, making it all too easy for minerals of dubious origin to enter the market.

The likelihood that a mineral may have originated in a conflict mine is high, the opportunity for corruption is significant, and it is highly plausible that documents will be forged by bad actors as conflict free to downstream users. The minerals change hands too many times before a manufacturer is even in the picture for a manufacturer to know with certainty from which mine the minerals were obtained.

In order for the minerals to be sold on the world market, they have to be refined into metals by metal processing companies. These companies, based mainly in East Asia, take the Congolese minerals and smelt or chemically process them together with metals from other countries in large furnaces. When it comes to tracing supply chains back to their sources, refiners are the critical link. After the mineral ore is refined into metal, it becomes impossible to distinguish the minerals that originated in the DRC from other sources, and supplies from all over the globe are mixed together at this step in the chain. Companies cannot trace back to the mine as the minerals are commingled before a company has any control over a product containing the metals. More emphasis should be placed on the smelters/refiners that actually purchase the minerals from traders.

Thus, between the mine and smelter there are no fewer than six levels of entities involved with many parties involved at each level, each ripe for corruption:

Mine→transporter→trading houses→export companies→foreign buyers/international traders→metal processing companies

The supply chain between the mine and refiner lacks oversight, governance, accountability, and standards. For companies trying to be socially responsible, there are no assurance that conflict free minerals are used due to the lack of a system to guarantee that the minerals are clean when they are sold to the smelter/refiner.

Tracing the metal in a given product is further complicated by the fact that material sources vary, and can vary over the life of the product. A given product will often have several suppliers for a particular component, and thus tracing or tracking one supply chain is a snapshot unlikely to remain static or represent a complete supply chain picture. Metals from multiple mines and other sources are typically undifferentiated and mixed at various points in the supply chain, including by *négociants*, *comptoirs*, traders, and smelters. If it is not possible to trace the origin of a mine at the smelter level then the ability of a company subject to the SEC is nonexistent. Attention must be paid to the smelters first as they are the choke points.

Supply Chain from the Refiner/Smelter to the Company Subject to the SEC

After the minerals have been refined into metals they are often sold to metal exchanges. The metal exchanges purchase metals from refiners around the world and are subsequently comingled. Metal traders then purchase the metals from the exchanges to sell directly to component manufacturers or most likely to a distributor. Component manufacturers then place orders with the distributors for a quantity of metal and manufacture the metal into a product. Original equipment manufacturers (OEM) then purchase parts and components from suppliers who in turn may order the products from lower-tier component manufacturers.

For every product, most OEMs have tens if not hundreds of suppliers. In some cases, the OEM has control over how the product is made, but in most cases the OEM simply orders a product with no control over the metals that are used for the part or component. OEMs then sell finished products further downstream to other manufacturers for incorporation into a larger item or system. Most of the companies who purchase the products only have contact with the first tier supplier or company immediately upstream from themselves. The actual name of the company that represents every tier of the supply chain is not known or available to the ultimate downstream user. The ability of downstream users to trace the metal to the mine assumes a supply chain is a transparent, linear process, when, in fact, it is a complex, multi-layered network of trading companies and suppliers where products are sourced and consolidated from multiple countries and multiple manufacturers.

In a limited number of examples, the number of metal traders and distributors is small. However it is important to remember that those examples are for single products. Rarely does a company's supply chain contain a single product. Most companies have thousands of product numbers with exponentially more suppliers. When examining how to implement the requirements, it is not practical to base requirements on one-off examples when companies will be implementing the requirements across multi-dimensional supply chains, with diverse product lines, from thousands of suppliers with products containing multiple combinations of the metals. It is important to differentiate requirements for downstream users, i.e., manufacturers based on their place in the supply chain and their control over the design of the product.

Thus, from the smelter/refiner to the company subject to the SEC, there are often no fewer than six entities involved, assuming a linear supply chain, and many more for the more accurate reflection involving a multi-layered supply chain with large numbers of suppliers.

Refiners/Smelter→ Metal Exchanges→Metal Traders→Distributors→Component manufacturers→Suppliers→OEM→U.S. company subject to the SEC

With this understanding of the supply chain and more clarity on how far removed the manufacturer is from the mine and smelter, we believe the discourse on the rule-making must focus on what is practical, called for by the legislation, implementable, and rational.

To help illustrate the complexity, the NAM provides four examples:

Example A: A systems integrator/manufacturer: The manufacturer has thousands of suppliers providing components for products/services in over a thousand diverse programs. These include automated sorting systems, aircraft, satellites, command and control systems, and IT/data management networks, to name a few. Examining every already-manufactured component or system that is integrated into this company's larger, final products would be nearly impossible since this manufacturer is so far downstream from the smelter.

Example B: A computer manufacturer: While a computer component manufacturer most likely has a limited number of suppliers, a computer is made from over 1900 individual parts and components. The computer manufacturer has at least three 1st tier suppliers for each part and each 1st tier supplier has numerous second tier suppliers followed by 3rd and 4th tier suppliers. It quickly becomes clear as to the difficulty in mapping the path to the smelter and identifying the smelter and mines of origin for each part.

Example C: An automotive manufacturer: Automotive manufacturers have extensive product lines with nearly one million active product numbers and tens of thousands of 1st tier suppliers. Many automotive parts may contain the four minerals. Mapping the entire supply chain based on the size and diversity of product quickly becomes exponentially impossible as suppliers of suppliers are added to the picture. *See Attachment #3.*

Example D: Large and complex manufacturing: Commercial aircraft contain over five million parts with over 50 percent of the parts and components potentially containing gold, tin, or tungsten. The aerospace supplier company would have to verify information from over 10,000 of its suppliers on their use of minerals in their products plus the company would have to re-certify components included in over 600,000 active spare parts items available to customers. This manufacturer has over 500,000 active part numbers for direct materials and an unknown number of indirect materials and part numbers. The company uses product and service integrators to manage consolidation of many indirect materials. Many are small businesses who would have to add staff and resources to manage data reporting requirements associated with conflict minerals. The path to the smelter and mine is not available in this example. *See Attachment #2.*

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ATTACHMENT #4

Recycled/Reclaim Material

Most high valued metals today are recycled and reclaimed ("Reclaim"). Reclaim is a very important industry, and in some cases is required to meet industry's demand for certain metals. Further, Reclaim is not only a cost effective raw material alternative to fresh metal, it is also a major driver to reduce energy costs and avoid disposal fees.

The four main metals derived from the four minerals specified in the law all have a high percentage of Reclaim shown in the table below.

Metal	Ore	Demand Satisfied Though Reclaim
Gold	Gold	35% (1)
Tin	Cassiterite	34% (2)
Tantalum	Coltan	40% (3)
Tungston	Wolframite	30% (4)

1) World Gold Council www.gold.org
2) International Tin Research Institute www.itri.co.uk
3) Tantalum-Niobium International Study Center www.tanb.org
4) International Tungsten industry Association www.itia.info

The traceability of the Reclaim feedstock would be impossible to track due to the various forms of recycle and thousands of consolidators, reclaims and scrap dealers both domestic and foreign.

The industry has adopted some general nomenclature to help classify the different types of processed metals, which is helpful to understand for purposes of this proposal.

A. Primary Sources

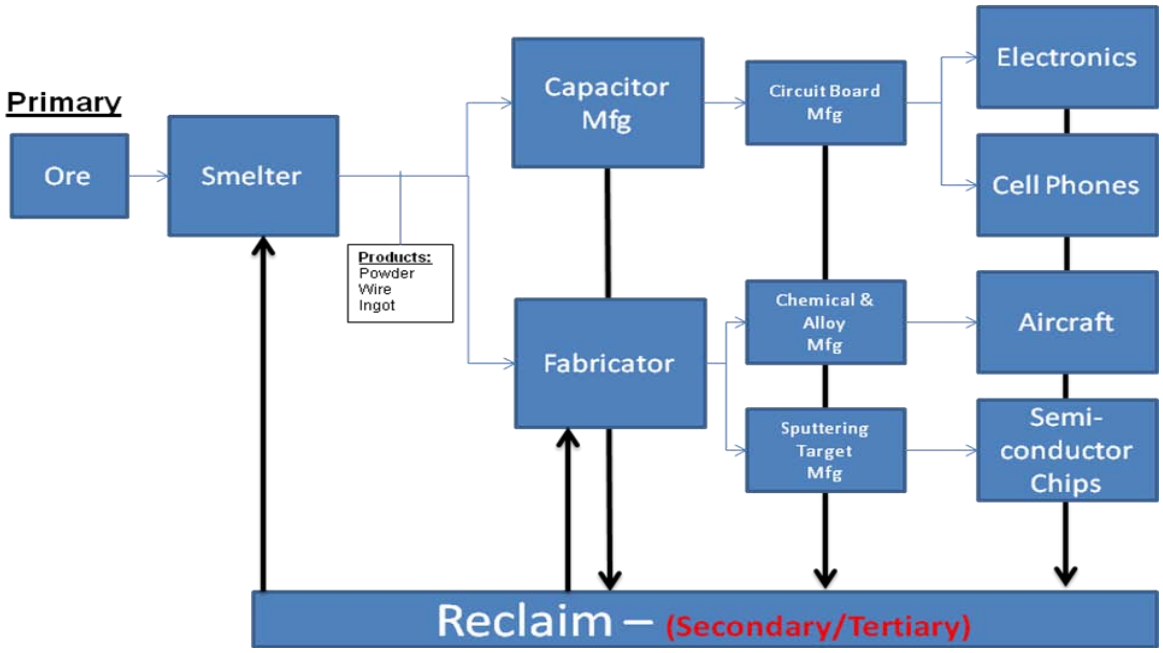
A Primary metal is manufactured directly from the ore, and is not considered Reclaim. For example, tantalum metal smelted directly from Tantalite or Coltan would be considered a metal from a Primary Source. This material, while having its own challenges to determine origin, is far easier to track and trace as compared to Reclaim. The ore is either sold directly or through traders and/or other middlemen to a smelter to extract and purify the metal. This metal is then fabricated into functional forms for use by manufacturers that need to integrate metal into their products. The ore is precisely the type of material that is funding activities in the DRC. Therefore, regulating the ore and the metal directly made from this ore is exactly what the legislature intended to stop funding the atrocities in the DRC.

B. Secondary/Tertiary Sources

Secondary sources are those in which metal can be derived from recycling. The recycling industry sometimes refers to two major types of secondary materials, new scrap and old scrap.

New scrap is often the waste product of metal articles, such as metal borings, turnings, chips, etc. Old scrap includes discarded consumer items such as old electronics or used parts which need to be processed to extract their metal. This is also sometimes referred to as Tertiary sources. A common example of this is the reclaim of tin solder or gold from printed circuit boards. Another example would be gold jewelry that is melted and put back into the gold supply chain.

Reclaim comprises both Secondary and Tertiary sources. It would be impossible to determine the source of Reclaim, especially for Tertiary sources. A common example is the recycling of tin from a conscientious consumer who deposits their cell phone in a recycle box in their local Staples® office supply store. The difficulty of tracking Reclaim is exemplified further by the tantalum supply chain chart below for capacitor and/or metal alloy manufacturing in which each part of the value chain contributes differently to Reclaim.



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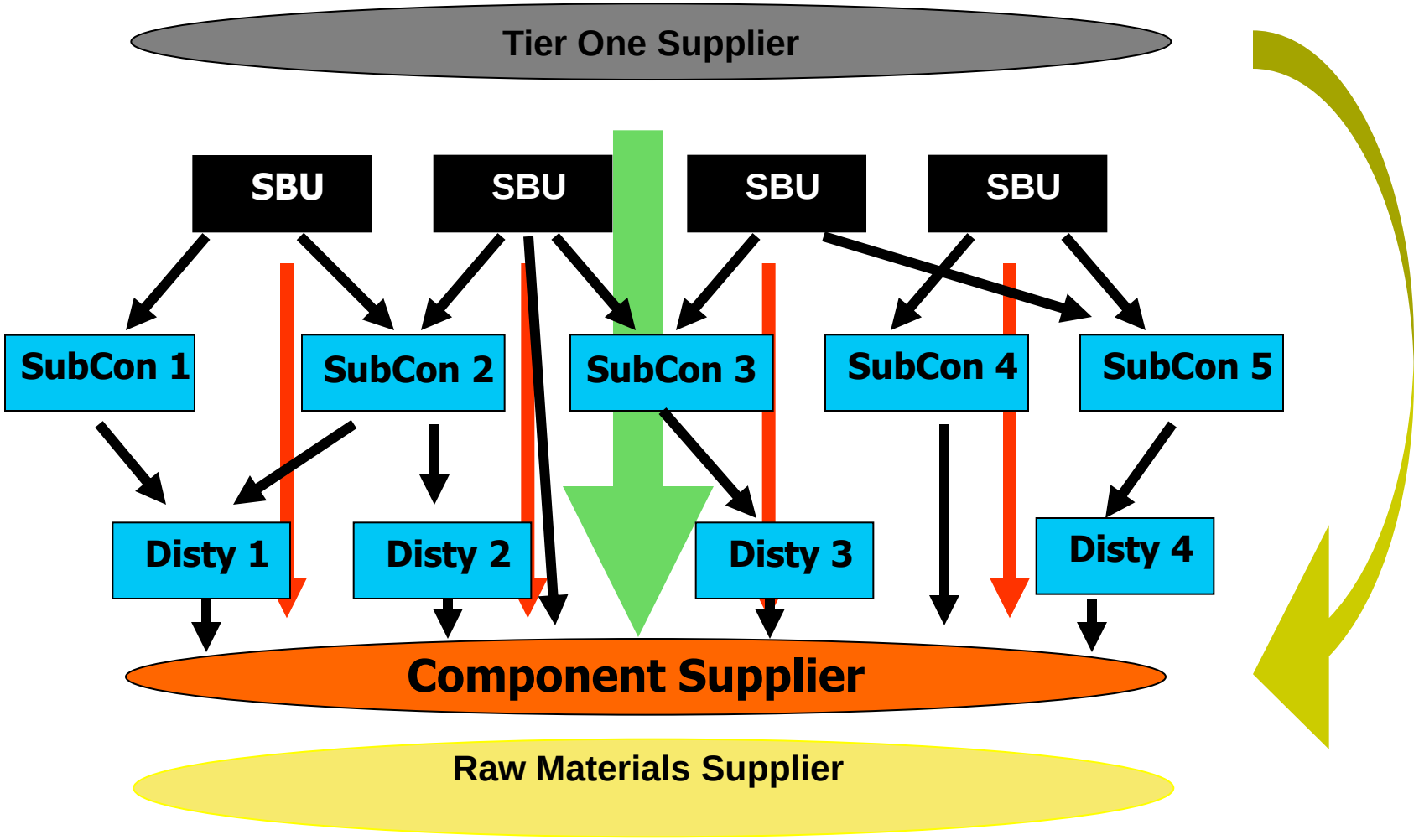
ATTACHMENT #2:
Large and Complex Manufacturing Airplane Example

Major Airplane Subsystems at First Tier in a Single Airplane: Millions of Parts from Hundreds of Suppliers

Examples of Subsystems Incorporated into Complex Supply Chains

- APU Tail cones
- Cargo Systems
- Exterior Lighting
- Fuel Measurement and Management Systems
- Fire Detection Systems
- Data Concentrators
- Exhaust Nozzles
- Ice Detection and Protection Systems
- Thrust Reversers
- Pylons
- Nacelle, Fan and Inlet Cowl
- Brake Control System/Proximity Sensing System
- Landing Gear Systems (wheels and brakes)
- Evacuation Systems
- Air Data Sensors and Sensing Systems
- SmartProbe Air Data Systems
- Composite Radomes
- Electronic Flight Bags
- In-Flight Entertainment Audio/Video Servers
- Security Surveillance Systems
- Crew Seats
- Interior Lighting
- Passenger Service Units
- Engine Components
- Fuel Injection Systems
- Fuel Control Systems
- Engine Sensors and Sensor Suites
- Engine Control Systems
- Power Generation and Distribution Systems
- Flight Control Surfaces
- Secondary Flight Control
- Primary Flight Controls
- Motion Controls
- Specialty Water Systems
- Supplemental Heating Systems

Supply Chain for *each* of the Hundreds of Subsystems: Sub Tier Reporting Challenges



Multi-tier complex supply chain requiring layers of data collection & analysis!

Minimal Use in Complex Systems-- Difficult Supply Chain Tracking

Where used in Aerospace:

- **Tin is used in a variety of engineering alloys including titanium alloys across various product lines**
- **Tungsten, in the form of tungsten-carbide, creates a hard surface and is used in applications for wear resistance as well as for cutting tools. Tungsten is also used as a coating in Landing Gear.**
- **Tantalum is used in some capacitors**
- **Gold is used widely used within electronics and electrical components.**

Complexity in the Supply Chain and Impacts for Large and Complex Manufacturing

- There are over 6.5M parts on one commercial aircraft – 50% are fasteners which may include gold, tin or tungsten.
- Company would be required to verify information from over 10,000 suppliers on their use of minerals in their products
- Company would have to re-certify components included in over 600,000 active spare parts items available to customers
- 500,000 active part numbers for direct materials (fly away product)
  - Purchasing materials from the raw materials level to “black” boxes where component chemistry and country of origin is not dictated, only performance requirements specified.
- Unknown number of indirect materials and part numbers
  - Company uses Product and Service integrators to manage consolidation of many indirect materials; many are “small businesses” who would have to add staff and resources to manage data reporting requirements associated with “conflict” minerals.

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ATTACHMENT #3:
Complexity of Supply Chains– Thousands of Suppliers, Millions of Parts

Sample Supply Chain for One Car:

	# of Component Part #s from Suppliers	***# of Suppliers for those Parts***
Tier 1	1,777	306
Tier 2	14,368	?
Tier 3	17,150	?
Tier 4	6,701	?
Tier 5	988	?
Tier 6	181	?
Tier 7	15	?
Tier 8~	9	?
Total	41,189 parts/components