

OVERVIEW OF RECENT EXPORT CONTROL DEVELOPMENTS AFFECTING U.S. SUPERALLOYS PRODUCERS Summer 2005

Recent developments in the export control arena underscore the need for specialty metals manufacturers to focus on export controls that apply to superalloys producers. This memorandum briefly summarizes the areas of principal concern in export controls that apply to superalloys products and their ancillary melting and processing technologies, as well as the areas of principal concern in export controls for industry members, and points out several new developments in United States export controls.

The number of different U.S. government agencies involved in developing control lists, denied persons lists, and in enforcing the law presents one of the biggest challenges to tracking developments in the export control area.

The principal agency, the Department of Commerce's Bureau of Industry and Security (BIS), is responsible for administering and enforcing the "dual use" export controls. These controls apply to products with applications for both commercial and military uses. BIS administers three principal types of controls. The first set applies to particular materials, finished products, software, and technologies.

1. Department of Commerce Export Controls

Many industry members are concerned with materials and materials processing controls that are found in Categories 0, 1 (materials), and 2 (materials processing) of BIS's Commerce Control List (CCL), which is part of the Export Administration Regulations. These categories identify products that are controlled for export, specify which controls apply, and help determine which shipments will require an export license.

In addition to the nuclear materials listed in Category 0, one also finds certain nickel powder or porous nickel metal for the manufacture of gaseous diffusion barriers (ECCN 0C006), other compounds or powders resistant to corrosion by UF₆. Certain nickel powder products not controlled for export by 0C006 are controlled for export by ECCN 1C240.

In CCL Category 1, certain equipment for producing metal alloys, metal alloy powder, or alloyed materials is controlled for export to many destinations under ECCN 1B002. Tools, dies, molds or fixtures for "superplastic forming" or "diffusion bonding" titanium, aluminum or their alloys for the manufacture of aircraft or aerospace engines or components of such engines are controlled for export by ECCN 1B003. Other metal powder production equipment is controlled for export by ECCN 1B102.

Many other products that could potentially be used to produce propellants, particularly for missiles, are controlled under other sections of ECCN category 1B.

A number of metal alloys, metal alloy powders and alloyed materials are controlled by ECCN 1C002. Controlled materials include over 40 different subcategories of aluminides, nickel alloys, niobium alloys, titanium alloys, and aluminum alloys. Other metal alloy powders or particulate material for use in turbine engine parts, alloys made using vacuum atomization, gas atomization, rotary atomization, splat quenching, melt spinning and comminution, melt extraction and comminution, or mechanical alloying, and certain alloyed materials in flake or thin rod form are also controlled by this category.

Other titanium and aluminum alloys of specified characteristics that are not controlled by 1C002 are controlled by 1C202.

Certain magnetic metals are controlled by 1C003. Certain uranium titanium alloys or tungsten alloys with a matrix based on iron, nickel, or copper are controlled by 1C004, while certain superconductive materials are controlled by 1C005.

Metals in particle sizes of less than 60 μ m (in most shapes) made from 99% or more zirconium, magnesium, and alloys of these metals, whether or not encapsulated, are controlled by 1C001, along with certain boron and boron carbide, guanidine nitrate, or nitroguanidine.

Maraging steels are controlled by 1C116 or 1C216.

Tungsten, molybdenum and alloys in the form of spherical or atomized particles for rocket motor components are controlled by 1C117.

Certain titanium stabilized duplex stainless steel is controlled by 1C118

Enriched boron is controlled by 1C225, and tungsten, tungsten carbide and other alloys of tungsten are controlled by 1C226. Many other metals are controlled in the 1C category, including certain magnesium, bismuth, beryllium, hafnium, zirconium, and others.

Certain other production equipment is also controlled under Category 2, such as crucibles resistant to liquid actinide metals (2A225), pumps that can move molten metal by electromagnetic forces (2A293), a number of types of machine tools (2A999 and 2B among other categories), isostatic presses (2B), certain spray deposition products (2B), robots, flow forming machines (2B109), certain furnaces (2B), and many other types of material processing equipment.

Moreover, more and more products are being manufactured from high nickel content alloys. Products like pumps, valves, storage tanks, heat exchangers, agitators and other types of liquid, gas, and chemical processing equipment made from those products are controlled for export under 2A226, 2A292, 2A999, 2B350, and 2B999. In fact, controls on these product categories, including equipment for chemical processing, were expanded significantly in April 2005. Commerce increased the country control list for the ECCN categories listed in this paragraph from 37 countries to approximately 160 countries.

Software and technology (the “know-how” required to develop, produce, or use materials or equipment listed in the CCL) is also controlled for export to many destinations. Such exports

could include written “recipes” for manufacturing certain controlled powders, alloys, or metals, for example, or technical manuals and other materials related to manufacturing equipment. These technology controls apply to transfers in the United States to nationals of countries that would require an export license if the technology were to be shipped to that destination. For example, if a license were required to export a certain nickel powder to India and China, a license would be required to share technology for producing that product with an Indian or Chinese engineer in the United States, whether they are an employee or a visitor to your facility. These “deemed export” controls do not apply to persons who hold green cards.

Many of the products listed above are controlled for export for National Security (NS) reasons (among other reasons, including missile technology controls, chemical and biological weapons proliferation, and for other non-proliferation reasons), meaning that licenses are required to export them to many, many destinations, unless a license exception applies.

Please note that this listing of materials is not intended to be comprehensive regarding the product controls in the Commerce ECCN listings. The control categories referred to briefly above are included for illustrative purposes. To ensure compliance with product export controls, each company must evaluate its own products against the ECCN listings and classification criteria to determine if they manufacture products that may require a license for export.

In addition to these product and technology controls, Commerce also enforces a second type of control on exports for certain prohibited end uses, including missile production and development in most parts of the world, chemical and biological weapons development, and for nuclear weapons development. Please note that within the last few months, these controls were expanded from a short list of countries to apply virtually worldwide. Commerce has also emphasized that exporters are responsible to be alert for “red flags” indicating that an export may be destined for a prohibited end use, and they must “know your customer, so that suspicious exports do not proceed without a reasonable due diligence check.

Finally, in a third set of controls, Commerce, along with the other export enforcement agencies described below, administers lists of “denied parties.” In general, U.S. companies are not permitted to export to, import from, or conduct financial transactions with companies or individuals on these lists. There are a few exceptions to this practice, but every export should be screened against all the applicable denied party lists to ensure compliance.

2. Department of State Controls

Separate from the Commerce Department controls on dual use equipment, the Department of State’s Directorate of Defense Trade Controls (DDTC) controls exports of all items “specifically designed, developed, configured, adapted, or modified” for a military application or defense article. If your company produces products for the U.S. military, there is a good chance that those products are controlled for export by the State Department rules. The State Department product controls are listed in the International Trafficking in Arms Regulations (ITAR), which also includes the Munitions List, which “calls out” specific products that are definitively within State’s export control jurisdiction. These controls do not apply exclusively to weapons or weapons systems.

The Munitions List includes metal products that may go into certain propellants for use in missiles and for other propulsion purposes. If listed, a product may be controlled for export even if it is used in a benign process, such as certain metal powders used in making paint. Because certain powders are also controlled by BIS, it is important to ensure that your product is subject to the proper agency's jurisdiction. Among many other potentially controlled items, the ITAR also covers certain iron powder. Certain zirconium, magnesium and alloys of these metals in particle sizes of less than 60 micrometers are covered, as is certain aluminum powder. Explosives and fuels containing certain alloys (whether encapsulated or not), and metal fuels in particle sizes less than 500×10-m (500 Microns), whether spherical, atomized, spheroidal, flaked or ground, consisting of 97 percent or more of any of the following: zirconium, beryllium, boron, magnesium, zinc, and alloys of these are also controlled by the ITAR. The regulations also cover metal embrittling agents.

As with the Commerce product controls mentioned above, this list is only illustrative, not comprehensive. Moreover, software and technology associated with ITAR-controlled items may also be controlled for export. In addition to administering and licensing certain exports of military products, software and technology, State approves agreements to cooperate with foreign purchasers (often governments) regarding product development and production projects.

3. Nuclear Regulatory Commission

Products used in overseas nuclear power facilities are also generally controlled for export by the Nuclear Regulatory Commission. The Department of Commerce may also have jurisdiction over certain of these items. Certain nuclear technologies are controlled for export by the Department of Energy.

4. Office of Foreign Assets Control

The Department of Treasury's Office of Foreign Assets Control (OFAC) administers U.S. trade embargoes. Complete import and export embargoes exist for superalloys products on **Cuba, Iran, Sudan and Syria**. No exports, imports or financial transactions should occur with these countries. In addition, imports of products from **Burma** are also prohibited. Exports to and imports from **North Korea** should also be treated with great caution.

The embargoes have changed significantly in the last several years, with many being dropped or altered significantly. For example, the complete embargo against Libya was lifted recently, although virtually all products on Commerce's control list still require an export license from Commerce before they may be exported to that country. OFAC also administers a list of Specially Designated Nationals (SDN's). This is OFAC's denied party list that should be checked for each export, along with the other denied party lists, as described in more detail below.

5. U.S. Department of State

Recently, in addition to its role in setting embargo and export control policy, the U.S. Department of State has become more active in identifying companies and individuals believed to be involved in weapons proliferation, often involving Chinese exports to Iran. Unfortunately, OFAC only lists certain of these companies (such as NORINCO *aka* North China Industries Corp., or China North Industries Corp., and certain of its subsidiaries and successor companies) in its Non-Proliferation Summary. A complete listing of the State proliferation sanctioned companies is not found in any one location, but may only be found by searching Federal Register notices. As an alternative to conducting such searches, some companies use automated export screening software to assist with their denied party screening process.

6. Recent Developments in Export Controls

A. BIS Proposal to Change Knowledge Standard

In October 2004, BIS proposed changing its definition of “knowledge” to make it easier to impose higher penalties for certain export violations. The change would continue to interpret the term “knowledge” to go beyond *actual* knowledge that a violation of the rules was underway, but would change the threshold from a “high probability” to a “more likely than not” standard. BIS has argued that this is not a substantive change in its rules and that the approach incorporates a “reasonable person” standard. The agency has received a number of negative comments about the proposed change, and has not implemented the change as of this writing.

In conjunction with this proposal, BIS has also expanded its “Red Flag” listing of issues to watch for in export transactions and has suggested a form of “safe harbor” for handling export control red flags. The safe harbor proposal involves contacting BIS to permit them to review the proposed transaction and red flags, potentially for 45-60 days. Many commentators have suggested that the safe harbor proposal is not practical and BIS is reconsidering the idea.

B. Increased Enforcement and Penalties

Along with increased funding for security and certain defense initiatives, funding for export enforcement is increasing. One of the most interesting developments is that the Federal Bureau of Investigation is increasingly involved in export control enforcement. Commerce’s budget was increased approximately one third for FY 2006, and we understand that plans involve devoting a good deal of this additional funding to enforcement activities. Commerce has also generally increased the penalties it has imposed on companies. Violations that once would have merited a penalty of \$20,000-\$40,000 frequently are now assessed in the \$175,000-\$700,000 range. In some instances, even voluntary disclosures have been met with fines in the hundreds of thousands of dollars, which were not typical in the past.

C. Denied Party Screening

There has been an increased emphasis on ensuring that companies screen their exports to ensure that they are not dealing with a “denied party.” Each export should be screened against all of the U.S. government denied party lists.

These lists include the three Department of Commerce’s Lists:

1. Denied Party List, 2. Unverified List, and 3. the Entity List (See <http://www.bis.doc.gov/complianceand enforcement/index.htm>).

The two OFAC lists should also be checked:

1. SDN List (<http://www.treas.gov/offices/enforcement/ofac/sdn/>),

2. Proliferation List (<http://www.treas.gov/offices/enforcement/ofac/sanctions/t11wmd.pdf>).

Finally, the Department of State’s Debarred Parties List should also be checked: (<http://www.pmdtc.org/debar059intro.htm>).

7. Conclusion

This summary of export controls and recent developments of concern to superalloys producers should not be viewed as a substitute for an export compliance system, which is the most effective way to prevent export violations. Such systems involve a company policy statement, identification of responsible individuals, an export control manual, product classification matrix, and many other elements. In addition to its role in preventing violations, should an export violation occur one of the first things the investigative agency looks for is a solid, preexisting export compliance system. Inadvertent errors in export transactions are treated much differently by enforcement personnel when exporters can demonstrate that they have a reliable system in place that was defeated by an unexpected occurrence, or which failed in one instance, but which is now repaired and operating effectively.

Should you have questions about these guidelines or other export control issues, please contact Larry Lasoff or Eric McClafferty at Collier Shannon Scott at (202) 342-8530 (llasoff@colliershannon.com), or (202) 342-8841 (emcclafferty@colliershannon.com).

This memorandum does not contain legal advice. Rather, it provides a summary of some, but not all, key aspects of the regulations relating to special metals product controls. Every company should consult experienced export counsel regarding rules applicable to its products and technologies. Collier Shannon Scott, PLLC, would be pleased to provide initial or detailed advice regarding any export control matter.

