

**SUMMARY OF TESTIMONY OF TERENCE P. STEWART
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LAW OFFICES OF STEWART AND STEWART
HEARING ON “RARE EARTH MINERALS AND 21ST CENTURY INDUSTRY”
U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON SCIENCE AND TECHNOLOGY
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
MARCH 16, 2010**

China’s Actions on Rare Earth Minerals

Mr. Chairman and Members of the Subcommittee, good afternoon.

China’s policy on rare earth minerals is similar to that nation’s actions on a large number of other raw materials. The general goals seem to be: reducing availability of supply for global customers as well as making foreign purchases more expensive through the imposition of export duties, export licenses, and other trade impeding measures. China’s policy encourages foreign investors to move production and investment to China and ensures low priced supplies for targeted, rapid growth sectors within China.

Last year, the United States filed a WTO case against “China’s export restraints on numerous raw materials critical to U.S. manufacturers and workers.” The raw materials subject to export restraints are used in some of the key industries identified in China’s industrial policies – steel, aluminum and chemicals. China’s most recent five-year plan (through 2010) continues to focus development in certain strategic sectors and to ensure a leading role for state-owned enterprises (“SOEs”) in many of those sectors.

Recently, the European Chamber in China reviewed the massive problems of overcapacity in a number of important industries in China, including steel, aluminum, cement, chemicals, oil refining, wind power equipment, ship building, flat glass, and photovoltaics. This overcapacity, coupled with export restraints on key raw materials, effectively shifts the burden of adjusting global excess capacity from China to trading partners by limiting access to affordably priced key raw materials. Moreover, limiting access to key raw materials can be used to force investment within China.

According to the 2009 U.S.-China Economic and Security Review Commission (USCC) Annual Report to Congress, China is targeting rare earth dependent components of key strategic industries for production within China including green technologies such as hybrid car batteries and the special magnets used in wind turbines.

China is attempting to make significant cuts to rare earth exports through a combination of export duties and export quotas. These actions are intended to raise prices outside of China. As China currently produces some 93 percent of rare earth minerals, China’s export restraints have understandably caused concern in many countries including the U.S.

Policies and Solutions for Government and Private Sector Consideration

What can be done? First and foremost, the U.S. and its trading partners should bring a second trade action against China on the range of export restraints being imposed on rare earth minerals. Such restraints are in clear violation of obligations China undertook to become a member of the World Trade Organization in 2001. At that time, China agreed to limit the use of export taxes to 84 product categories, none of which included rare earth minerals. In 2010, China is imposing export taxes on 329 product categories, including twenty-three rare earth mineral categories – a plain violation of its commitments.

On the domestic front, it is my understanding that both the government and the private sector are taking actions to understand the nature of the potential problems as well as looking for alternative sources of supply.

For example, the National Defense Authorization Act for Fiscal Year 2010 requires the Comptroller General to deliver a report by April 1st of this year on “rare earth materials in the defense supply chain.” Understanding the national security implications of Chinese rare earth policies is critical.

The Chairman and Members of this Subcommittee might want to advocate creation of a similar report for the civilian sector to help Members of Congress understand the challenges facing the American economy from the current reliance on China’s supply and what legislative approaches might be pursued to safeguard our commercial as well as our military interests.

A positive trend in recent years has been renewed interest in developing rare earth mineral resources outside of China, including in North America. Reports are encouraging although cost structures (with environmental needs) remain challenging.

The government, through the Committee on Foreign Investment in the United States (CFIUS), must help ensure that mines in the U.S. are not purchased by foreign interests whose governments have limited supply to U.S. users and that any new mines receive priority attention in terms of various government licenses and reviews.

Finally, the USGS indicates that for most rare earth minerals there are substitute products available, although known substitutes are less effective currently than the rare earth minerals. The U.S. government can support efforts to develop alternative solutions to current rare earth needs both through publicly financed research and through tax policies and other actions to support private sector research.

Thank you for the opportunity to appear today. I would be pleased to respond to any questions.

Testimony of
Terence P. Stewart, Esq.
March 16, 2010

**HEARING ON
“RARE EARTH MINERALS AND
21ST CENTURY INDUSTRY”**

**BEFORE THE
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Mr. Chairman and Members of the Subcommittee. I am pleased to appear this afternoon as part of your hearing on rare earth minerals and 21st century industry to try to address three questions that I understand are of interest to the Subcommittee:

1. How do Chinese actions in the rare earths sector fit into China’s policies on strategic industries and economic development?
2. Are there policies that the Federal Government can adopt, or strategies that the U.S. private sector can adopt, that can help assure a consistent and sustainable domestic supply of economically and militarily critical materials such as rare earths?
3. Are there policies that the Federal Government can adopt, or strategies that the U.S. private sector can adopt, that would support firms dependent on rare earth elements to retain their manufacturing capacity in the U.S.?

Let me start with some acknowledgments on my limitations as a witness on rare earth minerals. First, my background and expertise is on international trade law matters, including the World Trade Organization, and manufacturing competitiveness issues. Others on the panel today are the experts on minerals in general or rare earth minerals policies.

Our firm, over the years, has looked at many aspects of the U.S.-China relationship and has prepared for the U.S.-China Economic and Security Review Commission various studies looking at the trade and manufacturing impacts of China’s practices. For example, on March 24, 2009 I testified at a hearing before the Commission on “China’s Industrial Policy and its Impact on U.S. Companies, Workers and the American Economy.”

Rare earths are not part of the current WTO challenges brought by the U.S., the EU and Mexico of China’s export restraints on various materials. (See WT/DS394/1, China – Measures Related to the Exportation of Various Raw Materials, request for consultations by the United States.) Purchasers of rare earths are concerned about similar types of export restraints imposed by China on rare earth minerals, and there have been discussions by the U.S. with key allies about a possible future case. *Inside U.S.-China Trade*, October 21, 2009, “U.S. and Allies Discuss Rare Earth Metals Action at WTO.”

Now let me turn to the questions of interest to the Subcommittee.

China’s Actions on Rare Earth Minerals

What China is doing on rare earth minerals mirrors what it is doing on a large number of other raw materials: reducing availability of supply for global customers and/or making purchases more expensive through the imposition of export duties, export licenses, etc. The objective can be to encourage foreign investors to move investment to China to produce downstream products in the Middle Kingdom versus overseas, or to ensure low priced supplies for sectors in China targeted for rapid industrial growth.

China’s most recent five-year plan (covering 2006-2010) continues to focus development in certain sectors and to ensure a leading role for state-owned enterprises (“SOEs”) in certain sectors.

Specific guidance regarding SOEs was provided in December 2006 by the National Development and Reform Commission (NDRC) when it issued a guiding opinion on state-owned assets restructuring. The opinion states that SASAC’s state-owned assets should concentrate on “important industries and key areas” (i.e., strategic industries). The opinion then explains that the “important industry and key areas” shall “mainly include industries that involve national security, large and important infrastructures, important mineral resources, important public utilities and public services, and key enterprises in the pillar industries and high-tech industries.”

Seven important industries and key areas were identified: defense, electric power and grid, petroleum and petrochemical, telecommunications, coal, civil aviation, and shipping. Basic and pillar industries where the state would also maintain an important role included equipment manufacturing, auto, information technology, construction, iron and steel, non-ferrous metals, chemicals, and surveying and design.

The counterpart to rapid development of key industries is maintaining low prices and ready availability of key raw materials. Not surprisingly, the cases filed by the U.S., the EU and Mexico against Chinese export restraints on certain raw materials involve raw materials used in some of the key industries identified in China’s industrial policies – steel, aluminum and chemicals. As the USTR press release of November 28, 2009, announcing the panel request against China indicated, “The materials at issue are: bauxite, coke, fluorspar, magnesium, manganese, silicon metal, silicon carbide, yellow phosphorus and zinc, key inputs for numerous downstream products in the steel, aluminum and chemical sectors across the globe.”

A corollary to keeping prices at home low is the ability to force trading partners to shutter capacity in downstream industries. For example, a study came out in December 2009,

published by the European Chamber, entitled “Overcapacity in China: Causes, Impacts and Recommendations.” <http://www.europeanchamber.com.cn/view/static/?sid=6388>. The European Chamber in China reviewed the massive problems of overcapacity in a number of important industries including steel, aluminum, cement, chemicals, refining, wind power equipment, ship building, flat glass, and photovoltaics. While the causes of overcapacity in China are varied, as reviewed in the study, when coupled with export restraints on key raw materials, China can apply pressure on trading partners to make the adjustments for excess capacity created in China by limiting access at affordable prices to key raw materials or preempting development of key new technologies in the U.S. and elsewhere.

And control of key raw materials can be used to attract foreign investment by limiting access to such materials to those with a local presence. As discussed on one website, China is apparently offering to give ample supplies of rare earth minerals to companies that invest in China, even as China moves to limit or eliminate availability of product for export.

Chinese officials have made it very clear: If foreign manufacturing companies move their facilities to China, they will be guaranteed a steady supply of rare earths. Many technology companies are reluctant to do this because they want to protect their intellectual property, but will the temptation of an endless REE supply be too much? Companies continue to move operations to China, but the tension still exists.

Clint Cox, The Anchor House, Inc. (Research on Rare Earth Elements), December 17, 2009, <http://theanchorhouse.com> (page 5).

When one looks at China, one sees all of the effects and/or purposes behind the wide-ranging export restraints applied to rare earths and other materials. A series of articles in the last four months of 2009 reflects a range of concerns and purposes behind the draft “2009-2015 Rare Earth Industry Development Plan” from the Ministry of Industry and Information Technology:

[A]s early as 1998, China has started to limit the export quantities of rare earth products, and implemented the differentiating principle of “forbid, encourage, and restrict:” forbid the export of rare earth raw materials; restrict oxides and metals by using export quota; encourage downstream rare earth products, such as high value-added products like magnetic materials and fluorescent powder.

However, under the increasing global demand and China’s increasingly reduced number of eligible export companies and export quotas, some

companies with large quotas started to sell their quotas illegally. In addition, some developed countries’ companies started to invest and establish factories in tungsten, antimony, and other rare earth reserves areas, bought large quantities of raw materials, processed them simply before shipping them overseas for further processing or storage, thereby effectively evaded China’s export control. From 1990 to 2008, China’s rare earth export grew almost 10 times, but the average export price has lowered to about 60% of the original price.

All these demonstrate that China’s rare earth industry has three serious problems: overcapacity, disorderly competition, and cheap export on a large scale. It is of great urgency that we protect our rare earth resources and establish our reserve system.

MITT’s 2009-2015 Plan aims to macro-manage the rare earth industry, strengthen the control of strategic resources, and strictly control production capacity, by both administrative and market means. In the next 6 years, no new rare earth mining permit will be approved, separation of newly formed rare earth smelting companies will be strictly reviewed, and existing rare earth companies will be eliminated [by judging their performance] in the three areas of technology and equipment, environmental protection, and management.

At the same time, industry access standards will be higher, elimination of outdated capacity will be accelerated through “shut down, pause, merger, transfer.” Promote merger and reorganization of companies, strengthen and enlarge rare earth industry, form leading rare earth companies, establish a “China Rare Earth OPEC,” form companies with absolute dominating power in the market so that China can be the leader in controlling international market price.

Of course, to accomplish this, merely depending on controlling resources and export is not enough. More importantly, we must grasp rare earth core technology patents, rare earth application market, rare earth products standards. Therefore, we must start from the technology innovation, invest more in technology, and at the same time value intellectual property, implement IP strategies, and seize the commanding ground of technology. Break out of the technology restrictions of foreign-invested enterprises, and establish our own rare earth “high-way” industry chain.

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“2009-2015 Rare Earth Industry Development Plan” Has Been Passed, Hardware Business website (an electronic business website formed by Wenzhou Shengqi Internet Technology, Co., Ltd.), November 6, 2009 (unofficial translation).

China is attempting to make significant cuts to rare earth exports. China has implemented its program to limit foreign availability of rare earths through a combination of both export duties and export quotas. These actions will raise prices outside of China by curtailing supplies and by raising import prices (with all relevant taxes or duties).

The quota for rare earth materials was 31,300 MTs in 2009, down 8.33% from 2008. This is the 5th year since China started decreasing its rare earth export.

As a corresponding policy to the annual 35,000 MTs quota from 2009 to 2015 proposed by MIIT, China will restrict its mineral annual production to 130,000 to 170,000 MTs and its rare earth smelting products’ production to 120,000 to 150,000 MTs from 2009 to 2015.

“2009-2015 Rare Earth Industry Development Plan,” China Suppliers’ website (under the guidance of State Council Information Office, Internet Promotion Division; MOFCOM Department of Market Operation Regulation; National Development and Reform Commission, International Cooperation Center), September 4, 2009 (unofficial translation).

For 2010, the Chinese export duty and quota programs are reviewed in a series of documents issued in late 2009.

Included as Exhibit 1 to this testimony is an unofficial translation of the export duty rate chart for 2010, which is an attachment to a notice titled “State Council Customs Tariff Commission’s Notice on the Implementation of the 2010 Tariff Schedule,” Customs Tariff Commission Pub. [2009] No. 28, December 8, 2009. The exhibit shows export duties being assessed on 329 products in 2010 including many rare earth items (e.g., items 47, 89-92, 122-139 (export duties of 10 – 25%)).

Exhibit 2 to this testimony is an unofficial translation to the Ministry of Commerce of the People’s Republic of China (MOFCOM) Trade Letter [2009] No. 147, December 29, 2009, “2010 1st Batch Export Quota Distribution for Rare-Earth Materials in General Trade.” The total quota for the “1st batch” is 16,304 MT, with allocations given to twenty-two companies. A month and a half earlier, MOFCOM had published “Notice on Application Criteria and Procedures for 2010 Rare-Earth Materials Export Quota.” MOFCOM Pub. [2009] No. 94, November 6, 2009. An unofficial translation is included as Exhibit 3.

The U.S.-China Economic and Security Review Commission (USCC) has done great work summarizing the general problem of export restrictions found in China as well as the USCC’s understanding of how this problem plays out with rare earths. I have quoted the USCC at length because nobody has synthesized this data better. A complete excerpt of the USCC’s views from its 2009 Report to Congress is available in Exhibit 4.

Regarding China’s general export restrictions, the USCC states in its 2009 Report to Congress,

Export restrictions or export quotas, especially on energy and raw materials, have two general effects: First, they suppress prices in the domestic market for these goods, which lowers production costs for industries that use the export-restricted materials; and second, these restrictions increase the world price for the raw materials that are affected by limiting the world supply, thereby raising production costs in competing countries.

U.S.-China Economic and Security Review Commission (USCC) 2009 Report to Congress, at 62. Available at http://www.uscc.gov/annual_report/2009/annual_report_full_09.pdf.

While specifically addressing China’s restrictions on the export of rare earth minerals, the USCC notes,

China appears to be tightening its control over the supply of rare earth elements, valuable minerals that are used prominently in the production of such high-technology goods as flat panel screens and cell phones, and crucial green technologies such as hybrid car batteries and the special magnets used in wind turbines. USCC 2009 Report to Congress, at 63.

This reduction in supply by China is problematic, because, according to the USCC, “China accounts for the vast majority—93 percent—of the world’s production of rare earth minerals, and for the last three years it has been reducing the amount that can be exported.” 2009 Report to Congress, at 63. China admits that rare earth elements are “the most important resource for Inner Mongolia,” which contains 75 percent of China’s deposits. *Id.* Accordingly, the USCC cautions that by limiting exports and controlling production, the Chinese government is attempting to “consolidate its rare earths industry, with the aim of creating a consortium of miners and processors in Inner Mongolia.” *Id.* And according to the USCC, these tighter limits on exports of rare earths will place foreign manufacturers at a disadvantage compared to the domestic producers, whose access will not be so restricted. *Id.*

Policies and Solutions for Government and Private Sector Consideration

First and foremost, the U.S. and its trading partners should be considering a second trade action against China on the range of export restraints being imposed on rare earths (and possibly other products). The U.S. and others were concerned about China’s use of export restrictions during China’s negotiations for accession to the World Trade Organization. China agreed to limit the use of export taxes to 84 product categories (none of which included rare earth items) at rates no higher than included in Annex 6 of the Protocol of Accession. The fact that in 2010 China has imposed export taxes on 329 product categories, including twenty-three rare earth categories, creates a strong case of violation by China on the export taxes alone. Other violations from the use of export quotas are likely as well. Hopefully, Congressional interest will help move the Administration towards a second case on an expedited basis.

On the domestic front, it is my understanding that both the government and the private sector are taking actions to understand the nature of the potential problems as well as looking for alternative sources of supply.

For example, it is my understanding that the National Defense Authorization Act for Fiscal Year 2010, Publ. Law 111-84, requires the Comptroller General to deliver a report to the House and Senate Committees on Armed Services by April 1st this year on “rare earth materials in the defense supply chain.” Section 843, 50 USC app. 2093 note. The nature of the report suggests that it is likely to provide important options that should be considered by the Government to safeguard the military needs of the country moving forward in this area. Section 843(b) is reprinted below:

(b) Matters Addressed.—The report required by subsection (a) shall address at a minimum, the following:

(1) An analysis of the current and projected domestic and worldwide availability of rare earths for use in defense systems, including an analysis of projected availability of these materials in the export market.

(2) An analysis of actions or events outside the control of the Government of the United States that could restrict the access of the Department of Defense to rare earth materials, such as past procurements and attempted procurements of rare earth mines and mineral rights.

(3) A determination as to which defense systems are currently dependent on, or projected to become dependent on, rare earth materials, particularly neodymium iron boron magnets, whose supply could be restricted—

(A) by actions or events identified pursuant to paragraph (2); or

(B) by other actions or events outside the control of the Government of the United States.

(4) The risk to national security, if any, of the dependencies (current or projected) identified pursuant to paragraph (3).

(5) Any steps that the Department of Defense has taken or is planning to take to address any such risk to national security.

(6) Such recommendations for further action to address the matters covered by the report as the Comptroller General considers appropriate.

Historically, the U.S. maintained a strategic stockpile of critical materials for national defense. Presumably, one of the issues that will be addressed in the report is the extent to which stockpiling rare earth materials is appropriate or feasible.

The Chairman and Members of this Subcommittee might want to advocate creation of a similar report for the civilian sector. Such a report would obviously be helpful to Members of Congress in understanding the challenges facing the American economy from the current reliance on China as the source of supply and what legislative approaches might be pursued to safeguard our commercial and military interests.

Press accounts suggest that in recent years there has been renewed interest in developing rare earth mineral resources outside of China and that several mines are in the process of being reactivated or developed. *See, e.g.*, “New USGS Rare Earth Report Includes Thorium Energy, Inc.,” *Earth Times*, Oct. 8, 2009; <http://www.earthtimes.org/articles/show/new-usgs-rare-earth-report-includes-thorium-energy-inc,991131.shtml>; “Canadian firms set up search for rare-earth metals,” *New York Times*, Sept. 9, 2009, <http://www.nytimes.com/2009/09/10/business/global/10mineral.html?r=1&scp=10&sq=br>

Possible American sources of rare earths include a separation plant at Mount Pass, CA. Bastnasite concentrates and other rare-earth intermediates and refined products continue to be sold from mine stocks at Mountain Pass. Exploration for rare earths continued in 2009; however, global economic conditions were not as favorable as in early 2008. Economic assessments continued at Bear Lodge in Wyoming; Diamond Creek in Idaho; Elk Creek in Nebraska; and Lemhi Pass in Idaho-Montana.

Thus, government and the private sector may have additional sources of supply of rare earths beyond China, although the challenge may be overall cost of supply, particularly in countries like the U.S. or Canada where environmental needs are more likely to be addressed at present than in China.

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Presumably, the government, under CFIUS, can help ensure that mines in the U.S. are not purchased by foreign interests whose governments have limited supply to U.S. users and that new mines receive priority attention in terms of various government licenses and reviews.

I note that the Senate Committee on Energy and Natural Resources held a hearing last summer on mining law reform. The hearing had a number of witnesses who talked about the ability to improve the U.S. ability to supply more of its rare earth mineral needs and what challenges they faced based on various pending bills. Mining Law Reform, S. Hrg. 111-116, 111th Cong., 1st Sess. (July 14, 2009)(S.796; S.140). Certainly, the Congress will want to be sure that any legislation balances our needs for access to critical raw materials with the other concerns prompting legislative modifications.

Finally, the USGS indicates that for most rare earth minerals there are substitute products available, although known substitutes are less effective than the rare earth minerals. The U.S. government can support research efforts into the development of alternative solutions to current rare earth needs both directly through basic and applied research and through tax policies and other actions to support private sector research.

Thank you for the opportunity to appear today. I would be pleased to respond to any questions.

EXHIBIT 1

Testimony of Terence P. Stewart, Esq.
March 16, 2010

Exhibit 1

出口商品税率表 Export Duty Rate Chart (2010)

| 序号 No. | EX ① | 税则号列 Tariff No. | 商品名称(简称) Product Name | 出口税率 (%) Export Duty Rate (%) | 2010年暂定税率(%) 2010 Interim Export Duty Rate (%) | 2010年特别 出口税率 (%) 2010 Special Export Duty Rate (%) |
|-----------|---------|-----------------------|--|--|--|--|
| 1 | | 03019210 | 鳗鱼苗 Eels fry | 20 | 10 | |
| 2 | | 05061000 | 经酸处理的骨胶原及骨 Ossein and bones treated with acid | 40 | | |
| 3 | | 05069011 | 含牛羊成分的骨粉及骨废料 Powder and waste of bones of bovine and sheep | 40 | | |
| 4 | | 05069019 | 其他骨粉及骨废料 Other powder and waste of bones | 40 | | |
| 5 | ex | 05069090 | 其他骨及角柱(已脱胶骨、角柱除外) Other bones and horn-cores (other than degelatinized bones and horn-cores) | 40 | | |
| 6 | ex | 05069090 | 已脱胶骨、角柱 Degelatinized bones and horn-cores | 40 | 0 | |
| 7 | | 25041010 | 鳞片状天然石墨 Natural graphite in flakes | | 20 | |
| 8 | | 25041099 | 其它粉末状天然石墨 Other natural graphite in power | | 20 | |
| 9 | | 25049000 | 其他天然石墨 Other natural graphite | | 20 | |
| 10 | | 25085000 | 红柱石, 蓝晶石及硅线石, 不论是否煅烧 Andalusite, kyanite, and sillimanite, whether calcined or not | | 10 | |
| 11 | | 25086000 | 富铝红柱石 Mullite | | 10 | |
| 12 | | 25101010 | 未碾磨磷灰石 Ungrounded apatite | | 35 | |
| 13 | | 25101090 | 未碾磨天然磷酸钙、天然磷酸铝钙及磷酸盐白垩, 磷灰石除外 Ungrounded natural calcium phosphates, natural aluminum calcium phosphates, and phosphatic chalk other than apatite | | 35 | |
| 14 | | 25102010 | 已碾磨磷灰石 Ground apatite | | 35 | |
| 15 | | 25102090 | 已碾磨天然磷酸钙、天然磷酸铝钙及磷酸盐白垩, 磷灰石除外 Ground natural calcium phosphates, natural aluminum calcium phosphates, and phosphatic chalk other than apatite | | 35 | |
| 16 | | 25111000 | 天然硫酸钡(重晶石) Natural barium sulphate | | 10 | |

| | | | | | | |
|----|----|----------|---|--|----|--|
| | | | (barites) | | | |
| 17 | | 25112000 | 天然碳酸钡(毒重石), 不论是否煅烧 Natural barium carbonate(witherite), whether calcined or not | | 10 | |
| 18 | | 25191000 | 天然碳酸镁(菱镁矿) Natural magnesium carbonate (magnesite) | | 5 | |
| 19 | | 25199010 | 熔凝镁氧矿 Fused magnesia | | 10 | |
| 20 | | 25199020 | 烧结镁氧矿(重烧镁) Dead-burned (sintered) magnesia | | 10 | |
| 21 | | 25199030 | 碱烧镁(轻烧镁) Light-burned magnesia | | 5 | |
| 22 | | 25199099 | 非纯氧化镁 Other magnesium oxide, other than chemically pure magnesium oxide | | 5 | |
| 23 | | 25261020 | 未破碎及未研粉的滑石, 不论是否粗加修整或切割成矩形板块 Talc, not crushed, not powdered, whether or not roughly trimmed or merely cut into blocks or slabs or a rectangular shape | | 10 | |
| 24 | ex | 25262020 | 已破碎或已研粉的天然滑石(体积百分比90%及以上的产品粒度小于等于1.8微米的滑石粉除外) Crushed or powdered talc (other than that containing talc 90% or more by volume and of a granularity of 18mm or less) | | 10 | |
| 25 | ex | 25262020 | 体积百分比90%及以上的产品粒度小于等于18微米的滑石粉 Crushed or powdered talc, containing talc 90% or more by volume and of a granularity of 18mm or less | | 5 | |
| 26 | | 25292100 | 按重量计氟化钙含量≤97%的萤石 Fluorspar, containing by weight 97% or less of calcium fluoride | | 15 | |
| 27 | | 25292200 | 按重量计氟化钙含量>97%的萤石 Fluorspar, containing by weight more than 97% of calcium fluoride | | 15 | |
| 28 | | 25309020 | 稀土金属矿 Ores of rare earth metals | | 15 | |
| 29 | ex | 25309099 | 其他氧化镁含量在70%(含70%)以上的矿产品 Other mineral products with 70% or more of magnesia | | 5 | |
| 30 | | 25301010 | 未膨胀的绿泥石 Chlorites, unexpanded | | 10 | |
| 31 | | 26011110 | 平均粒径小于0.8毫米的未煅烧铁矿砂及其精矿; 但焙烧黄铁矿除外 Iron ores and concentrates, other than roasted iron pyrites, non-agglomerated, of a granularity of less than 0.8mm | | 10 | |
| 32 | | 26011120 | 平均粒径不小于0.8毫米, 但不大于6.3毫米的未煅烧铁矿砂及其精矿; 但焙烧黄铁矿除外 Iron ores and concentrates, other than roasted iron pyrites, non-agglomerated, of a | | 10 | |

| | | | | | | |
|----|----|----------|--|----|----|--|
| | | | granularity of 0.8mm or more, but not exceeding 6.3mm | | | |
| 33 | | 26011190 | 平均粒径大于6.3毫米的未烧结铁矿砂及其精矿, 但焙烧黄铁矿除外 Iron ores and concentrates, other than roasted iron pyrites, non-agglomerated, of a granularity of more than 6.3mm | | 10 | |
| 34 | | 26011200 | 已烧结铁矿砂及其精矿 Agglomerated iron ores and concentrates | | 10 | |
| 35 | | 26012000 | 焙烧黄铁矿 Roasted iron pyrites | | 10 | |
| 36 | | 26020000 | 锰矿砂及其精矿, 包括以干重计含锰量在20%及以上的锰铁砂及其精矿 Manganese ores and concentrates, including ferruginous manganese ores and concentrates with a manganese content of 20% or more, calculated on the dry weight | | 15 | |
| 37 | | 26030000 | 铜矿砂及其精矿 Copper ores and concentrates | | 10 | |
| 38 | | 26040000 | 镍矿砂及其精矿 Nickel ores and concentrates | | 15 | |
| 39 | | 26050000 | 钴矿砂及其精矿 Cobalt ores and concentrates | | 15 | |
| 40 | | 26070000 | 铅矿砂及其精矿 Lead ores and concentrates | 30 | | |
| 41 | ex | 26080000 | 锌矿砂及其精矿 (氧化锌含量大于80%的灰色饲料氧化锌除外) Zinc ores and concentrates (other than grey feed grade zinc oxide, containing more than 80% of zinc oxide by weight) | 30 | | |
| 42 | ex | 26080000 | 灰色饲料氧化锌 (氧化锌ZnO含量大于80%) Grey feed grade zinc oxide, containing more than 80% of zinc oxide by weight | 30 | 0 | |
| 43 | | 26090000 | 锡矿砂及其精矿 Tin ores and concentrates | 50 | 20 | |
| 44 | | 26100000 | 铬矿砂及其精矿 Chromium ores and concentrates | | 15 | |
| 45 | | 26110000 | 钨矿砂及其精矿 Tungsten ores and concentrates | 20 | | |
| 46 | | 26121000 | 铀矿砂及其精矿 Uranium ores and concentrates | | 10 | |
| 47 | | 26122000 | 钍矿砂及其精矿 Thorium ores and concentrates | | 10 | |
| 48 | | 26131000 | 已焙烧钼矿砂及其精矿 Molybdenum ores and concentrates, roasted | | 15 | |
| 49 | | 26139000 | 其他钼矿砂及其精矿 Molybdenum ores and concentrates, other | | 15 | |
| 50 | | 26140000 | 钛矿砂及其精矿 Titanium ores and concentrates | | 10 | |
| 51 | | 26151000 | 锆矿砂及其精矿 Zirconium ores and concentrates | | 10 | |

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|----|----------|---|----|----|--|
| 52 | 26159010 | 水合钽铌原料（钽铌富集物） Hydrated tantalum/niobium materials or enriched materials from tantalum/niobium ore | 30 | | |
| 53 | 26159090 | 其他钽铌矿砂及其精矿 tantalum/niobium ores and concentrates, other | 30 | | |
| 54 | 26161000 | 银矿砂及其精矿 Silver ores and concentrates | | 10 | |
| 55 | 26169000 | 其他贵金属矿砂及其精矿 Precious metal ores and concentrates, other | | 10 | |
| 56 | 26171010 | 生锑（锑精矿，选矿产品） Crude antimony (antimony concentrates which are mineral products) | 20 | | |
| 57 | 26171090 | 其他锑矿砂及其精矿 Antimony ores and concentrates, other | | 10 | |
| 58 | 26179010 | 朱砂(辰砂) Cinnabar | | 10 | |
| 59 | 26179090 | 其他矿砂及其精矿 Other ores and concentrates, other | | 10 | |
| 60 | 26180010 | 冶炼钢铁产生的锰渣 Granulated slag (slag sand) from the manufacture of iron or steel, containing mainly manganese | | 10 | |
| 61 | 26180090 | 冶炼钢铁产生的其他粒状熔渣(熔渣砂) Granulated slag (slag sand) from the manufacture of iron or steel, other | | 10 | |
| 62 | 26190000 | 冶炼钢铁产生的熔渣、浮渣、氧化皮及其他废料 Slag, dross (other than granulated slag), scalings and other waste from the manufacture of iron or steel | | 10 | |
| 63 | 26201100 | 含硬锌的矿灰及残渣 Slag, ash, and residues, containing mainly hard zinc spelter | | 10 | |
| 64 | 26201900 | 含其他锌的矿灰及残渣 slag, ash, and residues, containing mainly other zinc | | 10 | |
| 65 | 26202100 | 含铅汽油的淤渣及含铅抗震化合物的淤渣 Leaded gasoline sludges and leaded anti-knock compound sludges | | 10 | |
| 66 | 26202900 | 其他主要含铅的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, containing mainly lead, other | | 10 | |
| 67 | 26203000 | 主要含铜的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, containing mainly copper | | 10 | |
| 68 | 26206000 | 含砷、汞、铊及其混合物，用于提取或生产砷、汞、铊及其化合物的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, containing arsenic, mercury, thallium or their mixtures, of a kind used for the extraction of arsenic, mercury, thallium, | | 10 | |

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|----|----|----------|---|--|----|--|
| | | | or for the manufacture of their chemical compounds | | | |
| 69 | | 26209100 | 含锑、铍、镉、铬及其混合物的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, containing antimony, beryllium, cadmium, chromium, or their mixtures | | 10 | |
| 70 | | 26209910 | 主要含钨的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, containing mainly tungsten | | 10 | |
| 71 | | 26209990 | 含其他金属及化合物的矿灰及残渣 Other zinc-containing ore slag, ore ash and residues, other | | 10 | |
| 72 | | 27011100 | 未制成型的无烟煤, 不论是否粉化 Coal, whether or not pulverized, but not agglomerated, anthracite | | 10 | |
| 73 | | 27011210 | 未制成型的炼焦烟煤, 不论是否粉化 Coal, whether or not pulverized, but not agglomerated, bituminous coal, coking coal | | 10 | |
| 74 | | 27011290 | 未制成型的其他烟煤, 不论是否粉化 Coal, whether or not pulverized, but not agglomerated, bituminous coal, other | | 10 | |
| 75 | | 27011900 | 未制成型的其他煤, 不论是否粉化 Coal, whether or not pulverized, but not agglomerated, other coal | | 10 | |
| 76 | | 27012000 | 煤砖、煤球及类似用煤制固体燃料 Briquettes, ovoids, and similar solid fuels manufactured from coal | | 10 | |
| 77 | | 27021000 | 褐煤 Lignite | | 10 | |
| 78 | | 27022000 | 制成型的褐煤 Agglomerated lignite | | 10 | |
| 79 | | 27030000 | 泥煤(包括肥料用泥煤) 不论是否成型 Peat (including peat litter), whether or not agglomerated | | 10 | |
| 80 | | 27040010 | 煤制焦炭及半焦炭不论是否成型 Coke and semi-coke of coal, whether or not agglomerated | | 40 | |
| 81 | ex | 27060000 | 从煤、褐煤、或泥煤蒸馏所得的焦油及矿物焦油, 不论是否脱水或部分蒸馏, 包括再造焦油(含葱油 $\geq 50\%$ 及沥青 $\geq 40\%$ 的“炭黑油”除外) Tar distilled from coal, from lignite or from peat, and other mineral tars, whether or not dehydrated or partially distilled, including reconstituted tars (other than anthracene, containing oil $\geq 50\%$ and asphalt $\geq 40\%$ “black oil”) | | 15 | |
| 82 | | 27071000 | 粗苯 Benzole | | 10 | |

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|-----|----|----------|--|----|----|--|
| 83 | | 27090000 | 石油原油及从沥青矿物提取的原油 Petroleum oils and oils obtained from bituminous minerals, crude | | 5 | |
| 84 | | 28046900 | 按重量计硅含量小于99.99%的硅 Silicon, containing by weight less than 99.99% of silicon | | 15 | |
| 85 | | 28047010 | 黄磷(白磷) Yellow phosphorus (white phosphorus) | 20 | | |
| 86 | | 28047090 | 其他磷 Other phosphorus | 20 | 10 | |
| 87 | | 28053011 | 钕 Neodymium | | 15 | |
| 88 | | 28053012 | 镝 Dysprosium | | 25 | |
| 89 | | 28053013 | 铽 Terbium | | 25 | |
| 90 | | 28053019 | 其他未相互混合或熔合的稀土金属、钪及钇 Rare-earth materials, scandium and yttrium, not intermixed or interalloyed, other | | 25 | |
| 91 | | 28053021 | 已相互混合或熔合的稀土金属、钪及钇, 电池级 Rare-earth materials, scandium and yttrium, intermixed or interalloyed, battery grade | | 25 | |
| 92 | | 28053029 | 其他已相互混合或熔合的稀土金属、钪及钇 Rare-earth materials, scandium and yttrium, intermixed or interalloyed, other | | 25 | |
| 93 | | 28092019 | 磷酸 Phosphoric acid | | 7 | |
| 94 | | 28111100 | 氢氟酸(氟化氢) Hydrofluoric acid (hydrogen fluoride) | | 15 | |
| 95 | | 28141000 | 氨 Anhydrous ammonia | | 7 | |
| 96 | | 28142000 | 氨水 Ammonia in aqueous solution | | 7 | |
| 97 | | 28220090 | 其他钴的氧化物及氢氧化物; 商品氧化钴 Cobalt oxides and hydroxides; commercial cobalt oxides, other | | 10 | |
| 98 | | 28253010 | 五氧化二钒 Divanadium pentaoxide | | 5 | |
| 99 | ex | 28256000 | 锗的氧化物 Germanium oxides | | 5 | |
| 100 | | 28257000 | 钼的氧化物及氢氧化物 Molybdenum oxides and hydroxides | | 5 | |
| 101 | | 28259011 | 钨酸 Tungstic acid | | 5 | |
| 102 | | 28259012 | 三氧化钨 Tungstic oxide | | 5 | |
| 103 | | 28259019 | 其他钨的氧化物和氢氧化物 Tungstic oxides and hydroxides, other | | 5 | |
| 104 | | 28261290 | 其他氟化铝 Aluminum fluoride, other | | 5 | |
| 105 | | 28261910 | 铵的氟化物 Fluorides, of ammonium | | 5 | |

| | | | | | | |
|-----|----|----------|--|----|----|--|
| 106 | | 28261920 | 钠的氟化物 Fluorides, of sodium | | 5 | |
| 107 | | 28261990 | 其他氟化物 Fluorides, other | | 5 | |
| 108 | ex | 28269090 | 氟钽酸钾 Potassium tantalifluoride | 30 | | |
| 109 | | 28331100 | 硫酸钠 Disodium sulphate | | 5 | |
| 110 | | 28342110 | 肥料用硝酸钾 Potassium nitrate, for use as fertilizer | | 7 | |
| 111 | | 28417010 | 钼酸铵 Ammonium molybdates | | 5 | |
| 112 | | 28417090 | 其他钼酸盐 Molybdates, other | | 5 | |
| 113 | | 28418010 | 仲钨酸铵 Ammonium paratungstate | | 5 | |
| 114 | | 28418020 | 钨酸钠 Sodium tungstate | | 5 | |
| 115 | | 28418030 | 钨酸钙 Calcium wolframate | | 5 | |
| 116 | | 28418040 | 偏钨酸铵 Ammonium metatungstate | | 5 | |
| 117 | | 28418090 | 其他钨酸盐 Tungstates (wolframates), other | | 5 | |
| 118 | | 28461010 | 氧化铈 Cerium oxide | | 15 | |
| 119 | | 28461020 | 氢氧化铈 Cerium hydroxide | | 15 | |
| 120 | | 28461030 | 碳酸铈 Cerium carbonate | | 15 | |
| 121 | | 28461090 | 铈的其他化合物 Ceric compounds, other | | 15 | |
| 122 | | 28469011 | 氧化钇 Yttrium oxide | | 25 | |
| 123 | | 28469012 | 氧化镧 Lanthanum oxide | | 15 | |
| 124 | | 28469013 | 氧化钕 Neodymium oxide | | 15 | |
| 125 | | 28469014 | 氧化铕 Europium oxide | | 25 | |
| 126 | | 28469015 | 氧化镝 Dysprosium oxide | | 25 | |
| 127 | | 28469016 | 氧化铽 terbium oxide | | 25 | |
| 128 | ex | 28469019 | 其他氧化稀土(灯用红粉除外) Other rare-earth oxide (other than red powder for lumination) | | 15 | |
| 129 | | 28469021 | 氯化铽 Terbium chlorinates | | 25 | |
| 130 | | 28469022 | 氯化镝 Dysprosium chlorinates | | 25 | |
| 131 | | 28469028 | 混合氯化稀土 Mixture of rare-earth chlorides | | 15 | |
| 132 | | 28469029 | 未混合氯化稀土 Unmixed rare-earth chlorides | | 15 | |
| 133 | | 28469030 | 氟化稀土 Rare-earth fluorides | | 15 | |
| 134 | | 28469041 | 碳酸镧 Lanthanum carbonates | | 15 | |
| 135 | | 28469042 | 碳酸铽 Terbium carbonates | | 25 | |

| | | | | | | |
|-----|--|----------|---|----|---|-------------------------------------|
| 136 | | 28469043 | 碳酸镝 Dysprosium carbonates | | 25 | |
| 137 | | 28469048 | 混合碳酸稀土 Mixture of rare-earth carbonates | | 15 | |
| 138 | | 28469049 | 未混合碳酸稀土 Unmixed rare-earth carbonates | | 15 | |
| 139 | | 28469090 | 稀土金属、钇、钪的其他化合物 Compounds of rare-earth metals, of yttrium or of scandium, other | | 25 | |
| 140 | | 28499020 | 碳化钨 Tungsten carbide | | 5 | |
| 141 | | 29022000 | 苯 Benzene | 40 | 0 | |
| 142 | | 31021000 | 尿素② Urea | | 旺季(2-6月,9月16日-10月15日): 35%; 淡季(1月,7月1日-9月15日,10月16日-12月31日): 当出口价格不高于基准价格时, 7%; 当出口价格高于基准价格时, 税率=(1.07-基准价格/出口价格)*100%(基准价格按2.3元/公斤计算) During peak season (February to June, September 16 to October 15): 35%. During off season (January, July 1 to September 15, October 16 to December 31): when export price does not exceed base price, 7%; when export price exceeds base price, duty rate = (1.07-base price/export price)*100% (base price is RMB2.30/kg) | 旺季: 7.5% During peak season: 75% |
| 143 | | 31024000 | 硝酸铵与碳酸钙或其他无肥效无机物的混合物 Mixtures of ammonium nitrate with calcium carbonate or other inorganic nonfertilizing substances | | 7 | |
| 144 | | 31025000 | 硝酸钠 Sodium nitrate | | 7 | |
| 145 | | 31026000 | 硝酸钙和硝酸铵的复盐及混合物 Double salts and mixtures of calcium nitrate and ammonium nitrate | | 7 | |

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| 146 | 31028000 | 尿素及硝酸铵混合物的水溶液或氨水溶液 Mixtures of urea and ammonium nitrate in aqueous or ammoniacal solution | | 7 | |
| 147 | 31029010 | 氰氨化钙 Calcium cyanamide | | 7 | |
| 148 | 31029090 | 其他矿物氮肥及化学氮肥, 包括上述子目未列名的混合物 Mineral or chemical fertilizers, nitrogenous, other, including mixtures not specified in the foregoing subheadings | | 7 | |
| 149 | 31031010 | 重过磷酸钙 Triple superphosphates | | 7 | |
| 150 | 31031090 | 其他过磷酸钙 Other superphosphates | | 7 | |
| 151 | 31039000 | 其他矿物磷肥或化学磷肥 Mineral or chemical fertilizers, phosphatic, other | | 7 | |
| 152 | 31042090 | 其他氯化钾 Mineral or chemical fertilizers, potassic, other | | 30 | 75 |
| 153 | 31043000 | 硫酸钾 Potassium sulphate | | 30 | 75 |
| 154 | 31049010 | 光卤石、钾盐及其他天然粗钾盐 Carnallite, sylvite, and other crude natural potassium salts | | 30 | 75 |
| 155 | 31049090 | 其他矿物钾肥及化学钾肥 Mineral or chemical fertilizers, potassic, other | | 30 | 75 |
| 156 | 31051000 | 制成片状及类似形状或每包毛重不超过10公斤的31章各货品 Goods of Chapter 31 (Fertilizers) in tablets or similar forms or in packages of a gross weight not exceeding 10kg | | 7 | |
| 157 | 31052000 | 三元复合肥 Mineral or chemical fertilizers containing the three fertilizing elements nitrogen, phosphorus, and potassium | | 1-9月: 35%; 10-12月: 20% January to September: 35%. October to December: 20% | 75 |
| 158 | 31053000 | 磷酸氢二铵② Diammonium hydrogenorthophosphate (diammonium phosphate) | | 旺季(2-5月, 9月1日-10月15日): 35%; 淡季(1月, 6-8月, 10月16日-12月31日): 当出口价格不高于基准价格时, 7%; 当出口价格高于基准价格时, 税率=(1.07-基准价格/出口价格)*100%(基准价格按4.0元/公斤计算) During peak season (February to May, September 1 to October 15): 35%. | 旺季: 7.5% During peak season: 75%. |

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|-----|--|----------|--|--|---|--------------------------------------|
| | | | | | During off season (January, June to August, October 16 to December 31): when export price does not exceed base price, 7%; when export price exceeds base price, duty rate = (1.07-base price/export price)*100% (base price is RMB4.00/kg) | |
| 159 | | 31054000 | 磷酸二氢铵及磷酸二氢铵与磷酸氢二铵的混合物 ② Ammonium dihydrogenorthophosphate (monoammonium phosphate) and mixtures thereof with diammonium hydrogenorthophosphate (diammonium phosphate) | | 旺季(2-5月,9月1日-10月15日): 35%; 淡季(1月,6-8月,10月16日-12月31日): 当出口价格不高于基准价格时, 7 %; 当出口价格高于基准价格时, 税率=(1.07-基准价格/出口价格)*100%(基准价格按3.7元/公斤计算) During peak season (February to May, September 1 to October 15): 35%. During off season (January, June to August, October 16 to December 31): when export price does not exceed base price, 7%; when export price exceeds base price, duty rate = (1.07-base price/export price)*100% (base price is RMB3.70/kg) | 旺季: 7 5% During peak season: 75%. |
| 160 | | 31055100 | 含有硝酸盐及磷酸盐的肥料 Other mineral or chemical fertilizers containing nitrates and phosphates | | 7 | |
| 161 | | 31055900 | 其他含氮磷两种肥效元素的矿物肥料或化学肥料 Other mineral or chemical fertilizers containing the two fertilizing elements nitrogen and phosphorus | | 7 | |
| 162 | | 31056000 | 含磷钾两种元素的肥料 Mineral or chemical | | 7 | |

| | | | | | | |
|-----|--|----------|--|----|----|--|
| | | | fertilizers containing the two fertilizing elements phosphorus and potassium | | | |
| 163 | | 31059000 | 其他肥料 Other fertilizers | | 7 | |
| 164 | | 38249091 | 含滑石5 0%以上的混合物 Compounds containing more than 50% of talc by weight | | 10 | |
| 165 | | 41039011 | 经退鞣处理的山羊板皮 Dried hides and skins of goats, have undergoing a reversible tanning process | 20 | | |
| 166 | | 41039019 | 山羊板皮, 经退鞣处理的除外 Dried hides and skins of goats, other | 20 | | |
| 167 | | 44012100 | 针叶木木片或木粒 Wood in chips or particles, coniferous | | 15 | |
| 168 | | 44012200 | 非针叶木木片或木粒 Wood in chips or particles, non-coniferous | | 15 | |
| 169 | | 44091010 | 针叶木地板条(块) Coniferous floor board strips | | 10 | |
| 170 | | 44092910 | 其他非针叶木地板条 Other non-coniferous floor board strips | | 10 | |
| 171 | | 44190031 | 木制一次性筷子 One-time chopsticks of wood | | 10 | |
| 172 | | 44219021 | 木制圆签、圆棒、冰果棒、压舌片及类似一次性制品 Round toothpick, round stick, ice fruit stick, tongue-pressing plate, and similar one-time products, of wood | | 10 | |
| 173 | | 47010000 | 机械木浆 Mechanical wood pulp | | 10 | |
| 174 | | 47020000 | 化学木浆, 溶解级 chemical wood pulp, dissolving grades | | 10 | |
| 175 | | 47031100 | 未漂白针叶木碱木浆或硫酸盐木浆 Chemical wood pulp, soda or sulphate, other than dissolving grades, unbleached, coniferous | | 10 | |
| 176 | | 47031900 | 未漂白非针叶木碱木浆或硫酸盐木浆 Chemical wood pulp, soda or sulphate, other than dissolving grades, unbleached, non-coniferous | | 10 | |
| 177 | | 47032100 | 漂白针叶木碱木浆或硫酸盐木浆 Chemical wood pulp, soda or sulphate, other than dissolving grades, bleached, coniferous | | 10 | |
| 178 | | 47032900 | 漂白非针叶木碱木浆或硫酸盐木浆 Chemical wood pulp, soda or sulphate, other than dissolving grades, bleached, non-coniferous | | 10 | |
| 179 | | 47041100 | 未漂白的针叶木亚硫酸盐木浆 Chemical wood pulp, sulphite, other than dissolving grades, unbleached, coniferous | | 10 | |
| 180 | | 47041900 | 未漂白的非针叶木亚硫酸盐木浆 Chemical wood pulp, sulphite, other than dissolving grades, | | 10 | |

| | | | | | | |
|-----|----------|--|--|----|----|--|
| | | | unbleached, non-coniferous | | | |
| 181 | 47042100 | | 漂白的针叶木亚硫酸盐木浆 Chemical wood pulp, sulphite, other than dissolving grades, bleached, coniferous | | 10 | |
| 182 | 47042900 | | 漂白的非针叶木亚硫酸盐木浆 Chemical wood pulp, sulphite, other than dissolving grades, bleached, non-coniferous | | 10 | |
| 183 | 47050000 | | 半化学木浆 Wood pulp obtained by a combination of mechanical and chemical pulping process (semi-chemical wood pulp) | | 10 | |
| 184 | 47062000 | | 从回收纸或纸板提取的纤维浆 Pulps of fibers derived from recovered (waste and scrap) paper or paperboard | | 10 | |
| 185 | 47063000 | | 竹浆 Pulps of bamboo | | 10 | |
| 186 | 47069100 | | 其他纤维状纤维素机械浆 Other mechanical pulp derived from fibrous cellulosic material | | 10 | |
| 187 | 47069200 | | 其他纤维状纤维素化学浆 Other chemical pulp derived from fibrous cellulosic material | | 10 | |
| 188 | 47069300 | | 其他纤维状纤维素半化学浆 Other semi-chemical pulp derived from fibrous cellulosic material | | 10 | |
| 189 | 72011000 | | 非合金生铁, 含磷量小于或等于 0.5% Non-alloy pig iron containing by weight 0.5% or less of phosphorus | 20 | 25 | |
| 190 | 72012000 | | 非合金生铁, 含磷量大于 0.5% Non-alloy pig iron containing by weight more than 0.5% of phosphorus | 20 | 25 | |
| 191 | 72015000 | | 合金生铁 Alloy pig iron | 20 | 25 | |
| 192 | 72021100 | | 锰铁, 含碳量> 2% Ferro-manganese, containing by weight more than 2% of carbon | 20 | | |
| 193 | 72021900 | | 锰铁, 含碳量≤2 % Ferro-manganese, containing by weight 2% or less of carbon | 20 | | |
| 194 | 72022100 | | 硅铁, 含硅量>55% Ferro-silicon, containing by weight more than 55% of silicon | 25 | | |
| 195 | 72022900 | | 硅铁, 含硅量≤55% Ferro-silicon, containing by weight 55% or less of silicon | 25 | | |
| 196 | 72023000 | | 硅锰铁 Ferro-silico-manganese | 20 | | |
| 197 | 72024100 | | 铬铁, 含碳量> 4% Ferro-chromium, containing by weight more than 4% of carbon | 40 | 20 | |

| | | | | | | |
|-----|----|----------|--|----|----|--|
| 198 | | 72024900 | 铬铁, 含碳量≤4 % Ferro-chromium, containing by weight 4% or less of carbon | 40 | 20 | |
| 199 | | 72025000 | 硅铬铁 Ferro-silico-chromium | | 20 | |
| 200 | | 72026000 | 镍铁 Ferro-nickel | | 20 | |
| 201 | | 72027000 | 钼铁 Ferro-molybdenum | | 20 | |
| 202 | | 72028010 | 钨铁 Ferro-tungsten | | 20 | |
| 203 | | 72028020 | 硅钨铁 Ferro-silico-tungsten | | 20 | |
| 204 | | 72029100 | 钛铁及硅钛铁 Ferro-titanium and ferro-silico-titanium | | 20 | |
| 205 | | 72029290 | 其他钒铁 Other ferro-vanadium | | 20 | |
| 206 | | 72029300 | 铌铁 Ferro-niobium | | 20 | |
| 207 | | 72029919 | 其他钕铁硼合金 Other ferro-neodymium-boron alloy | | 20 | |
| 208 | | 72029990 | 其他铁合金 Other ferro-alloys | | 20 | |
| 209 | | 72031000 | 直接从铁矿还原的铁产品 Ferrous products obtained by direct reduction of iron ore | | 25 | |
| 210 | | 72039000 | 其他铁, 海绵铁, 产品纯度>99.94% Other ferrous products, spongy ferrous products, iron having a purity of more than 99.94% by weight | | 25 | |
| 211 | | 72041000 | 铸铁废碎料 Waste and scrap of cast iron | 40 | | |
| 212 | | 72042100 | 不锈钢废碎料 Waste and scrap of stainless steel | 40 | | |
| 213 | | 72042900 | 其他合金钢废碎料 Other waste and scrap of alloy steel | 40 | | |
| 214 | | 72043000 | 镀锡钢铁废碎料 Waste and scrap of tinned iron or steel | 40 | | |
| 215 | | 72044100 | 机械加工中产生的废料 Waste and scrap of iron and steel produced in mechanical processing | 40 | | |
| 216 | | 72044900 | 其他钢铁废碎料 Other waste and scrap of iron and steel | 40 | | |
| 217 | | 72045000 | 供再熔的碎料钢铁锭 Remelting scrap ingots | 40 | | |
| 218 | ex | 72051000 | 生铁、镜铁及钢铁颗粒(不带球弧面的棱角形颗粒数量大于80%的棱角钢砂除外) Granules of pig iron, spiegeleisen, iron or steel (other than angular steel grit containing more than 80% of angular granules without spherical arc) | | 25 | |
| 219 | | 72052900 | 生铁、镜铁及其他钢铁粉末 Powders of pig iron, spiegeleisen, iron or steel | | 25 | |
| 220 | | 72061000 | 铁及非合金钢锭 Iron and non-alloy steel in | | 25 | |

| | | | | | | |
|-----|----------|--|---|--|----|--|
| | | | ingots | | | |
| 221 | 72069000 | | 其他初级形状的铁及非合金钢 Iron and non-alloy steel in other primary forms | | 25 | |
| 222 | 72071100 | | 宽度<厚度两倍的矩形截面钢坯 ,C<0.25% Steel billet of rectangular cross-section, the width measuring less than twice the thickness, containing by weight less than 0.25% of carbon | | 25 | |
| 223 | 72071200 | | 其他矩形截面钢坯 ,C, 0.25% Other steel billet of rectangular cross-section, containing by weight less than 0.25% of carbon | | 25 | |
| 224 | 72071900 | | 其他含碳量<0.25%的钢坯 Other steel billet, containing by weight 0.25% or more of carbon | | 25 | |
| 225 | 72072000 | | 含碳量≥0.25%的钢坯 Other steel billet, containing by weight less than 0.25% of carbon | | 25 | |
| 226 | 72131000 | | 带有轧制花纹的热轧盘条 Bars, rods, and coils, hot-rolled, containing rolling patterns | | 15 | |
| 227 | 72132000 | | 其他易切削钢制热轧盘条 Bars, rods, and coils, hot-rolled, other, of free-cutting steel | | 15 | |
| 228 | 72139100 | | 直径<14mm圆截面的其他热轧盘条 Bars, rods, and coils, hot-rolled, other, of circular cross-section measuring less than 14mm in diameter | | 15 | |
| 229 | 72139900 | | 其他热轧盘条 Bars, rods, and coils, hot-rolled, other | | 15 | |
| 230 | 72142000 | | 热加工带有轧制花纹的条、杆 Bars and rods, thermal processed, containing rolling patterns | | 15 | |
| 231 | 72143000 | | 热加工易切削钢的条、杆 Bars and rods, thermal processed, of free-cutting steel | | 15 | |
| 232 | 72149100 | | 热加工其他矩形截面的条杆 Bars and rods, thermal processed, other, of rectangular cross-section | | 15 | |
| 233 | 72149900 | | 热加工其他条、杆 Bars and rods, thermal processed, other | | 15 | |
| 234 | 72151000 | | 冷加工其他易切削钢制条、杆 Bars and rods, cold processed, of free-cutting steel | | 15 | |
| 235 | 72155000 | | 冷加工或冷成形的其他条、杆 Bars and rods, other, cold-formed or cold-finished | | 15 | |
| 236 | 72159000 | | 铁及非合金钢的其他条、杆 Other bars and rods of iron or non-alloy steel | | 15 | |
| 237 | 72181000 | | 不锈钢锭及其他初级形状产品 Stainless steel | | 15 | |

| | | | | | | |
|-----|--|----------|--|----|----|--|
| | | | in ingots or other primary forms | | | |
| 238 | | 72189100 | 矩形截面的不锈钢半制品 Semi-finished products of stainless steel, of rectangular cross-section | | 15 | |
| 239 | | 72189900 | 其他不锈钢半制品 Semi-finished products of stainless steel, other | | 15 | |
| 240 | | 72191312 | 厚度在3毫米及以上, 但小于4.75毫米的未经酸洗的按重量计含锰量在5.5%以上的铬锰系不锈钢卷板 Ferro-chromium-manganese steel in coils, of a thickness of 3mm or more but less than 4.75mm, not acid pickled, containing by weight no less than 5.5% of manganese | | 10 | |
| 241 | | 72191322 | 厚度在3毫米及以上, 但小于4.75毫米的经酸洗的按重量计含锰量在5.5%以上的铬锰系不锈钢卷板 Ferro-chromium-manganese steel in coils, of a thickness of 3mm or more but less than 4.75mm, acid pickled, containing by weight no less than 5.5% of manganese | | 10 | |
| 242 | | 72191412 | 厚度小于3毫米的未经酸洗的按重量计含锰量在5.5%以上的铬锰系不锈钢卷板 Ferro-chromium-manganese steel in coils, of a thickness of less than 3mm, not acid pickled, containing by weight no less than 5.5% of manganese | | 10 | |
| 243 | | 72191422 | 厚度小于3毫米的经酸洗的按重量计含锰量在5.5%以上的铬锰系不锈钢卷板 Ferro-chromium-manganese steel in coils, of a thickness of less than 3mm, acid pickled, containing by weight no less than 5.5% of manganese | | 10 | |
| 244 | | 72241000 | 合金钢锭及其他初级形状合金钢 Other alloy steel in ingots or other primary forms | | 15 | |
| 245 | | 72249010 | 单重 ≥ 10 吨的粗铸锻件坯 Raw casting forging stocks, individual piece of a weight of 10t or more | | 15 | |
| 246 | | 72249090 | 其他合金钢坯 Other alloy steel billets | | 15 | |
| 247 | | 74010000 | 铜铋、沉积铜(泥铜) Copper mattes, cement copper (precipitated copper) | | 15 | |
| 248 | | 74020000 | 未精炼铜, 电解精炼用的铜阳极 Unrefined copper, copper anodes for electrolytic refining | 30 | 15 | |
| 249 | | 74031111 | 高纯阴极铜(铜含量高于99.9935%) High-purity copper cathodes (containing by weight more than 99.9935% of copper) | 30 | 5 | |
| 250 | | 74031119 | 其他阴极精炼铜 Other refined copper cathodes | 30 | 10 | |

| | | | | | |
|-----|----------|---|----|----|--|
| 251 | 74031190 | 其他精炼铜的阴极型材 Other refined copper sections of cathodes | 30 | 10 | |
| 252 | 74031200 | 精炼铜的线锭 Refined copper, wire-bars | 30 | 10 | |
| 253 | 74031300 | 精炼铜的坯段 refined copper, billets | 30 | 10 | |
| 254 | 74031900 | 其他未锻轧的精炼铜 Other refined copper, unwrought | 30 | 10 | |
| 255 | 74032100 | 未锻轧的铜锌合金(黄铜) Copper-zinc base alloys (brass), unwrought | 30 | 5 | |
| 256 | 74032200 | 未锻轧的铜锡合金(青铜) Copper-tin base alloys (bronze), unwrought | 30 | 5 | |
| 257 | 74032900 | 未锻轧的其他铜合金 Other copper alloys, unwrought | 30 | 5 | |
| 258 | 74040000 | 铜废碎料 Copper waste and scrap | 30 | 15 | |
| 259 | 74050000 | 铜母合金 Master alloys of copper | | 10 | |
| 260 | 74071000 | 精炼铜条、杆及型材及异型材 Copper bars, rods, and profiles, of refined copper | 30 | 0 | |
| 261 | 74072100 | 铜锌合金条、杆及型材及异型材 Copper bars, rods, and profiles, of copper-zinc base alloys | 30 | 0 | |
| 262 | 74072900 | 其他铜合金条杆、型材及异型材 Copper bars, rods, and profiles, of other copper alloys | 30 | 0 | |
| 263 | 74081100 | 最大截面尺寸>6mm的精炼铜丝 Copper wire, of refined copper, of which the maximum cross-sectional dimension exceeds 6mm | 30 | 0 | |
| 264 | 74081900 | 其它精炼铜丝 Copper wire, of refined copper, other | 30 | 0 | |
| 265 | 74082100 | 铜锌合金丝 Copper wire, of copper-zinc base alloys | 30 | 0 | |
| 266 | 74082200 | 铜镍合金丝或铜镍锌合金丝 Copper wire, of copper-nickel base alloys or copper-nickel-zinc base alloys | 30 | 0 | |
| 267 | 74082900 | 其他铜合金丝 Copper wire, of copper alloys, other | 30 | 0 | |
| 268 | 74091110 | 含氧量不超过 10PPM的成卷的精炼铜板、片、带 Copper plates, sheets, and strips, of refined copper, in coils, containing oxygen of not more than 10PPM | 30 | 0 | |
| 269 | 74091190 | 其他成卷的精炼铜板、片、带 Copper plates, sheets, and strips, of refined copper, in coils, other | 30 | 0 | |
| 270 | 74091900 | 其他精炼铜板、片、带 Copper plates, sheets, and strips, of refined copper, other | 30 | 0 | |
| 271 | 74092100 | 成卷的铜锌合金板、片、带 Copper plates, sheets, and strips, of copper-zinc base | 30 | 0 | |

| | | | | | | |
|-----|----|----------|--|----|----|--|
| | | | alloys, in coils | | | |
| 272 | | 74092900 | 其他铜锌合金板、片、带 Copper plates, sheets, and strips, of copper-zinc base alloys, other | 30 | 0 | |
| 273 | | 74093100 | 成卷的铜锡合金板、片、带 Copper plates, sheets, and strips, of copper-tin base alloys, in coils | 30 | 0 | |
| 274 | | 74093900 | 其他铜锡合金板、片、带 Copper plates, sheets, and strips, of copper-tin base alloys, other | 30 | 0 | |
| 275 | | 74094000 | 铜镍合金或铜镍锌合金板、片、带 Copper plates, sheets, and strips, of copper-nickel base alloys or copper-nickel-zinc base alloys | 30 | 0 | |
| 276 | | 74099000 | 其他铜合金板、片、带 Copper plates, sheets, and strips, of other copper alloys | 30 | 0 | |
| 277 | | 75021010 | 高纯镍（镍含量大于 99.99%，钴含量不大于 0.005%） High-purity nickel (containing 99.99% or more of nickel by weight, but less than 0.005% of cobalt by weight) | 40 | 5 | |
| 278 | | 75021090 | 未锻轧的非合金镍 Unwrought nickel, not alloyed, other | 40 | 15 | |
| 279 | | 75022000 | 未锻轧镍合金 Unwrought nickel, alloys | 40 | 15 | |
| 280 | | 75030000 | 镍废碎料 Nickel waste and scrap | | 10 | |
| 281 | | 75089010 | 电镀用镍阳极 Electroplating nickel anodes | 40 | 15 | |
| 282 | | 76011010 | 按重量计含铝量在 99.95%及以上的非合金铝 Aluminum, not alloyed, containing 99.95% or more of aluminum by weight | 30 | 0 | |
| 283 | | 76011090 | 按重量计含铝量在 99.95%以下的非合金铝 Aluminum, not alloyed, containing less than 99.95% of aluminum by weight | 30 | 15 | |
| 284 | | 76012000 | 未锻轧铝合金 Aluminum alloys, unwrought | 30 | 15 | |
| 285 | | 76020000 | 铝废碎料 Aluminum waste and scrap | 30 | 15 | |
| 286 | | 76041010 | 非合金铝条、杆 Aluminum bars and rods, not alloyed | 20 | 15 | |
| 287 | | 76041090 | 非合金铝型材及异型材 Aluminum profiles, not alloyed | 20 | 0 | |
| 288 | | 76042100 | 铝合金制空心异型材 Aluminum alloys hollow profiles | 20 | 0 | |
| 289 | ex | 76042910 | 截面周长大于等于210毫米的铝合金制条、杆 Aluminum bars and rods, of aluminum alloys, with a cross-sectional perimeter of 210mm or more | 20 | 15 | |
| 290 | ex | 76042910 | 截面周长小于210毫米的铝合金条杆 Aluminum bars and rods, of aluminum alloys, with a cross-sectional perimeter of less than 210mm | 20 | 5 | |

| | | | | | |
|-----|----------|--|----|----|--|
| 291 | 76042990 | 铝合金制其他型材及异型材 Aluminum profiles, of aluminum alloys, other | 20 | 0 | |
| 292 | 76051100 | 最大截面尺寸超过7mm的非合金铝丝 Aluminum wire, of aluminum, not | 20 | 0 | |
| 293 | 76051900 | 其他非合金铝丝 Aluminum wire, of aluminum, not alloyed, other | 20 | 0 | |
| 294 | 76052100 | 最大截面尺寸超过7mm的铝合金丝 Aluminum wire, of aluminum alloys, of which the maximum cross-sectional dimension exceeding 7mm | 20 | 0 | |
| 295 | 76052900 | 其他铝合金丝 Aluminum wire, other | 20 | 0 | |
| 296 | 76061120 | 厚度在0.3mm及以上,但不超过0.36mm的非合金铝制矩形铝板片带 Aluminum plates, sheets, and strips, rectangular, of aluminum, not alloyed, of a thickness of 0.30mm or more but not exceeding 0.36mm | 20 | 0 | |
| 297 | 76061190 | 非合金铝制矩形的其他板、片及带 Aluminum plates, sheets, and strips, rectangular, of aluminum, not alloyed, other | 20 | 0 | |
| 298 | 76061220 | 厚度 <0.28mm的铝合金制矩形铝板片带 Aluminum plates, sheets, and strips, rectangular, of aluminum alloys, of a thickness of less than 0.28mm | 20 | 0 | |
| 299 | 76061230 | 厚度在0.28mm及以上,但不超过0.35mm的铝合金制矩形铝板片带 Aluminum plates, sheets, and strips, rectangular, of aluminum alloys, of a thickness of 0.28mm or more but not exceeding 0.35mm | 20 | 0 | |
| 300 | 76061250 | 0.35mm<厚度≤0.4mm的铝合金制矩形铝板片带 Aluminum plates, sheets, and strips, rectangular, of aluminum alloys, of a thickness of more than 0.35mm but not exceeding 0.4mm | 20 | 0 | |
| 301 | 76061290 | 厚度 >0.4mm的铝合金制矩形铝板片带 Aluminum plates, sheets, and strips, rectangular, of aluminum alloys, of a thickness of more than 0.4mm | 20 | 0 | |
| 302 | 76069100 | 非合金铝制非矩形的板、片及带 Aluminum plates, sheets, and strips, not rectangular, of aluminum, not alloyed | 20 | 0 | |
| 303 | 76069200 | 铝合金制非矩形的板、片及带 Aluminum plates, sheets, and strips, not rectangular, of aluminum alloys | 20 | 0 | |
| 304 | 78011000 | 未锻轧精炼铅 Unwrought refined lead | | 10 | |
| 305 | 78020000 | 铅废碎料 Lead waste and scrap | | 10 | |

| | | | | | |
|-----|----------|--|----|----|--|
| 306 | 79011110 | 按重量计含锌量在 99.995%及以上的未锻轧锌 Unwrought zinc, containing by weight 99.995% or more of zinc | 20 | 0 | |
| 307 | 79011190 | 99.99≤含锌量 <99.995%的未锻轧锌 Unwrought zinc, containing by weight 99.99% or more, but less than 99.995% of zinc | 20 | 5 | |
| 308 | 79011200 | 含锌量<99.99%的未锻轧锌 Unwrought zinc, containing by weight less than 99.99% of zinc | 20 | 15 | |
| 309 | 79012000 | 未锻轧锌合金 Unwrought zinc alloys | 20 | 0 | |
| 310 | 79020000 | 锌废碎料 Zinc waste and scrap | | 10 | |
| 311 | 80011000 | 非合金锡 Tin, not alloyed | | 10 | |
| 312 | 80020000 | 锡废碎料 Tin waste and scrap | | 10 | |
| 313 | 81011000 | 钨粉 Tungsten powders | | 5 | |
| 314 | 81019400 | 未锻轧钨 Unwrought tungsten | | 5 | |
| 315 | 81019700 | 钨废碎料 Tungsten waste and scrap | | 15 | |
| 316 | 81021000 | 钼粉 Molybdenum powders | | 5 | |
| 317 | 81029400 | 未锻轧钼 Unwrought molybdenum | | 5 | |
| 318 | 81029700 | 钼废碎料 Molybdenum waste and scrap | | 15 | |
| 319 | 81033000 | 钽废碎料 Tantalum waste and scrap | | 10 | |
| 320 | 81041100 | 按重量计含镁量≥99.8%的未锻轧镁 Unwrought magnesium, containing 99.8% or more of magnesium by weight | | 10 | |
| 321 | 81041900 | 其他未锻轧镁 Other unwrought magnesium | | 10 | |
| 322 | 81042000 | 镁废碎料 Magnesium waste and scrap | | 10 | |
| 323 | 81101010 | 未锻轧锑 Unwrought antimony | 20 | 5 | |
| 324 | 81101020 | 锑粉末 Antimony powders | 20 | | |
| 325 | 81102000 | 锑废碎料 Antimony waste and scrap | 20 | | |
| 326 | 81110010 | 未锻轧锰; 锰废碎料; 粉末 Unwrought manganese, manganese waste and scrap, powders | | 20 | |
| 327 | 81122100 | 未锻轧铬、铬粉末 Unwrought chromium, chromium powders | | 15 | |
| 328 | 81122200 | 铬废碎料 Chromium waste and scrap | | 15 | |
| 329 | 81129230 | 未锻轧铟; 铟废碎料; 铟粉末 Unwrought indium, indium waste and scrap, indium powders | | 5 | |

注①: “ex”表示应税商品范围以“商品名称”描述为准, 其余以税号为准。

②: 出口价格包括海关认可的货物货价、货物运至中华人民共和国境内输出地点装载前的运输及其相关费用、保险费。淡季

当出口价格高于基准价格时，税率计算结果四舍五入保留3位小数。

Note:

- ① “Ex” means the scope of the product covered by the tariff number is governed by the description in the column of “product name.” Others are governed by the tariff number.
- ② Export price includes product price, transportation and related expenses and insurance incurred prior to arrival and loading at the export location within the PRC, recognized by the Customs. If export price exceeds base price during off season, the duty rate calculation result should be rounded to three decimal places.

EXHIBIT 2

Testimony of Terence P. Stewart, Esq.
March 16, 2010

Exhibit 2

Ministry of Commerce of the People's Republic of China

MOFCOM Trade Letter [2009] No. 147

December 29, 2009

2010 年第一批一般贸易稀土出口配额安排表

2010 1st Batch Export Quota Distribution for Rare-Earth Materials in General Trade*

Translator's note: China seems to distinguish between general trade, processing trade, border trade, and aid trade.

| 序号 No. | 公司名称 Company Name | 配额数量 (吨) Quota (MT) |
|-----------|---|------------------------------|
| | 合计 Total | 16304 |
| 1 | 中国中钢集团公司 China Sinosteel Corporation | 784 |
| 2 | 中国五矿集团公司 China Minmetals Corporation | 1182 |
| 3 | 中国有色金属进出口江苏公司 China National Nonferrous Metals Import & Export Jiangsu Corp. | 726 |
| 4 | 广东广晟有色金属进出口有限公司 China National Nonferrous Metals Import & Export Guangdong Co., Ltd. | 518 |
| 5 | 常熟盛昌稀土冶炼厂 Changshu Shengchang Rare Earth Smeltery | 337 |
| 6 | 江苏卓群纳米稀土股份有限公司 Jiangsu GeoQuin Nano Rare Earth Co., Ltd. | 248 |
| 7 | 江西金世纪新材料股份有限公司 Jiangxi Golden Century Advanced Materials Co., Ltd. | 374 |
| 8 | 内蒙古包钢和发稀土有限公司 Inner Mongolia Hefa Rare Earth Science & Technology Development Co., Ltd. | 1504 |
| 9 | 江西南方稀土高技术股份有限公司 Jiangxi South Rare Earth Hi-Tech Co., Ltd. | 629 |
| 10 | 赣州晨光稀土新材料有限公司 | 601 |

| | | |
|----|--|------|
| | Ganzhou Chenguang Rare Earth Advanced Material Co., Ltd. | |
| 11 | 赣州虔东稀土集团股份有限公司 Ganzhou Qiandong Rare Earth Group Co., Ltd. | 536 |
| 12 | 有研稀土新材料股份有限公司 Grirem Advanced Materials Co., Ltd. | 469 |
| 13 | 益阳鸿源稀土有限责任公司 Yiyang Hongyuan Rare Earth Co., Ltd. | 837 |
| 14 | 包头华美稀土高科有限公司 Baotou Huamei Rare-Earth Hi-Tech Co., Ltd. | 1659 |
| 15 | 内蒙古包钢稀土(集团)高科技股份有限公司 Inner Mongolia Baotou Steel Rare-Earth (Group) Hi-Tech Co., Ltd. | 1350 |
| 16 | 甘肃稀土新材料股份有限公司 Gansu Rare Earch New Materials LLC | 1069 |
| 17 | 乐山盛和稀土科技有限公司 Leshan Shenghe Rare Earth Technology Co., Ltd. | 1102 |
| 18 | 阜宁稀土实业有限公司 Funing Rare Earth Industrial Co., Ltd. | 477 |
| 19 | 山东鹏宇实业股份有限公司 Shandong Pengyu Industrial Co., Ltd. | 986 |
| 20 | 赣县红金稀土有限公司 Ganxian Hongjin Rare Earth Co., Ltd. | 239 |
| 21 | 徐州金石彭源稀土材料厂 Xuzhou Jinshi Pengyuan Rare Earth Materials Factory | 374 |
| 22 | 广东珠江稀土有限公司 Guangdong Zhujiang Rare Earth Co., Ltd. | 304 |

某企业应得配额 = 此次下达配额量 × [0.78 × (A1 + A2) + 0.22 × A3]

A1 = (各企业近三年出口数量 ÷ 全国出口总量) × 0.9 权重

A2 = (各企业近三年出口金额 ÷ 全国出口金额) × 0.1 权重

A3 = 生产企业 2008 年出口供货量 ÷ 各生产企业出口供货总量

A company's quota = total quota x [0.78 x (A1 + A2) + 0.22 x A3]

A1 = (the company's export quantity in the most recent 3 years ÷ entire country's export quantity) x 0.9 weighted average

A2 = (the company's export revenue in the most recent 3 years ÷ entire country's export revenue) x 0.1 weighted average

A3 = the manufacturing company's 2008 export quantity ÷ all manufacturing companies' export quantity

EXHIBIT 3

Testimony of Terence P. Stewart, Esq.
March 16, 2010

Exhibit 3
Ministry of Commerce of the People's Republic of China

**Notice on Application Criteria and Procedures for
2010 Rare-Earth Materials Export Quota**

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Summary of Key Points

1. This does not apply to foreign-invested enterprises.
2. A manufacturing enterprise must:
 - (1) Register with Industrial and Commercial Administrative Department, obtain import and export operational qualification or register as a foreign trading enterprise, and have independent legal personality. Enterprises registered after 2005 must be approved by national supervising department.
 - (2) Comply with rare earth industry planning, policy, and management, and have exported either 2,000 MT or more products or have export revenue of RMB 70,000,000 or more in 2008.
 - (3) If the conditions set in the subparagraph immediately above are not met, the manufacturing enterprise must have, in the most recent 3 years (2006-2008), an average annual export quantity of 1,500 MT or more, or average annual export revenue of USD 15,000,000 or more (the numbers will be based on Custom's statistics).
 - (4) Product quality must meet current national standards, and obtain ISO9000 quality system certification.
 - (5) The manufacturing enterprise's rare earth materials must come from rare earth mining enterprises that have mining qualifications as proclaimed by the Ministry of Land and Resources.
 - (6) Have environmental protection facilities (including online monitoring facilities) that are compatible with the scale of production, pollutants emission is in compliance with national or local standards, have timely paid emission fees in full in 2008 and 2009 as verified by the environmental protection department at the provincial level or above, have not violated environmental laws, have formulated environmental emergency plan, and have complete and sound supporting facilities.
 - (7) Comply with national land management policies and regulations.
 - (8) Comply with national laws and regulations and relevant local regulations, lawfully participate in pension, unemployment, medical care, work injury, maternity, and other social insurance, timely pay social insurance premiums in full, and provide proof of the same from local labor and social insurance departments.

- (9) Have not violated national laws and regulations.
3. A trading enterprise [note: literal translation would be “circulation enterprise”] must:
 - (1) Register with Industrial and Commercial Administrative Department, obtain import and export operational qualification or register as a foreign trading enterprise, and have independent legal personality.
 - (2) Have registered capital of RMB 50,000,000 or more, and have, in the most recent 3 years (2006-2008), an average annual export quantity of 1,500 MT or more, or average annual export revenue of USD 15,000,000 or more (the numbers will be based on Custom’s statistics).
 - (3) Its export products must come from manufacturing enterprises in compliance with Paragraph 2, Subparagraphs (1), (4)-(9), and it must provide relevant documents on its supply manufacturing enterprises’ such compliance, the related value added tax invoices, and proof of its supply enterprises.
 - (4) Comply with national laws and regulations and relevant local regulations, lawfully participate in pension, unemployment, medical care, work injury, maternity, and other social insurance, timely pay social insurance premiums in full, and provide proof of the same from local labor and social insurance departments.
 - (5) Obtain ISO9000 quality system certification.
 - (6) Have not violated national laws and regulations.
 4. In order to concentrate production and decrease the number of export enterprises, the export performance of parents, subsidiaries, and affiliates of companies that are registered after January 1, 2007 will not be recognized.
 5. If an enterprise violates laws and regulations or environmental protection policies after receiving the quota, its quota will be withdrawn, suspended, or cancelled once its violation is confirmed.
 6. Application and Approval Procedures:
 - (1) Local rare earth export enterprises shall submit their applications to provincial level commercial supervising department. The provincial level commercial supervising department will conduct an initial verification under the application criteria set forth above, submit its decision and selected list of qualified enterprises to the Ministry of Commerce (MOFCOM), and copy the same to China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters (CCMMC) by November 20, 2009.
 - (2) Rare earth export enterprises managed by central government shall submit their application directly to the MOFCOM, and copy the same to CCMMC.
 - (3) MOFCOM commissions CCMMC to conduct a review of the provincial level verification. CCMMC shall submit its decision to MOFCOM by November 27, 2009.

(4) MOFCOM will decide and publish the final list of companies based on CCMC's review decision.

7. Basically, both manufacturing and trading enterprises have to submit supporting documents on every item listed in the criteria.

EXHIBIT 4

Testimony of Terence P. Stewart, Esq.
March 16, 2010

EXHIBIT 4
Excerpt from the U.S.-China Economic and Security Review Commission (USCC)
2009 Report to Congress, pp. 62-63
available at http://www.uscc.gov/annual_report/2009/annual_report_full_09.pdf

Export Restrictions

Export restrictions or export quotas, especially on energy and raw materials, have two general effects: First, they suppress prices in the domestic market for these goods, which lowers production costs for industries that use the export-restricted materials; and second, these restrictions increase the world price for the raw materials that are affected by limiting the world supply, thereby raising production costs in competing countries.^{250/}

According to the USTR, “despite China’s commitment since its accession to the WTO to eliminate all taxes and charges on exports, including export duties . . . China has continued to impose restrictions on exports of certain raw materials,^{251/} including quotas, related licensing requirements, and duties, as China’s state planners have continued to guide the development of downstream industries.”^{252/} The USTR’s 2009 report on foreign trade barriers concludes that “China’s export restrictions affect U.S. and other foreign producers on a wide range of downstream products such as steel, chemicals, ceramics, semiconductor chips, refrigerants, medical imagery, aircraft, refined petroleum products, fiber optic cables, and catalytic converters, among many others.”^{253/}

In June 2009, the Obama Administration initiated a WTO case against China over export restraints on numerous important raw materials. U.S. officials have been concerned for years about export restraints on raw materials from China and, in cooperation with European and Japanese officials, have held regular bilateral and multilateral discussions with Chinese officials since China joined the WTO, before the WTO’s Import Licensing Committee.^{254/} The USTR reports that these efforts had no effect and that China in fact increased export restraints on raw materials over time.^{255/} According to the USTR, “China’s measures appear to be part of a troubling industrial policy aimed at providing a substantial competitive advantage for the Chinese industries using these inputs.”^{256/} Others have reported concerns that China’s export restrictions are part of a larger effort to stockpile resources in order to insulate China from sudden fluctuations in global commodities markets and to increase China’s ability to influence those markets.^{257/}

China’s Restrictions on Exports of Rare Earth Minerals

China appears to be tightening its control over the supply of rare earth elements, valuable minerals that are used prominently in the production of such high-technology goods as flat panel screens and cell phones, and crucial green technologies such as hybrid car batteries and the special magnets used in wind turbines.^{258/} Rare earth minerals are also critical for many military technologies, including the magnets used in the guidance systems of U.S. military smart bombs like Joint Direct Attack Munitions, and super-alloys (used to make parts for jet aircraft engines).

China accounts for the vast majority—93 percent—of the world’s production of rare earth minerals, and for the last three years it has been reducing the amount that can be exported.^{259/} After a draft policy outlining the tightening of exports for rare earth minerals was

issued in August 2009 by the Ministry of Industry and Information Technology, Zhao Shuanglian, deputy chief of the Inner Mongolia autonomous region, spoke out to quell global concerns. According to Mr. Zhao, rare earth elements are “the most important resource for Inner Mongolia,” which contains 75 percent of China’s deposits, and by cutting exports and Controlling production, the government wants to “attract users of rare earths to set up in Inner Mongolia” to develop manufacturing.^{260/} China also is taking steps to consolidate its rare earths industry, with the aim of creating a consortium of miners and processors in Inner Mongolia.^{261/}

China’s Ministry of Industry and Information Technology says it is limiting production in some mines and closing others completely because some of the rare earths are extracted under dire environmental conditions, but tighter limits on exports of rare earths place foreign manufacturers at a disadvantage compared to the domestic producers, whose access will not be so restricted. There has been no official U.S. government response so far, but a spokeswoman for the U.S. embassy in Beijing questioned the WTO-legality of such restrictions, noting that “[w]e would be concerned by any WTO member’s policies that appear to be inconsistent with its WTO obligations.”^{262/}

250. Peter Navarro, “Benchmarking the Advantages Foreign Nations Provide their Manufacturers,” in Richard McCormack, ed., *Manufacturing a Better Future for America* (Washington, DC: The Alliance for American Manufacturing, 2009), p. 113.

251. China maintains export quotas and, at times, export duties on antimony, bauxite, coke, fluorspar, indium, magnesium carbonate, molybdenum, rare earths, silicon, talc, tin, tungsten, and zinc.

252. U.S. Trade Representative, *2009 National Trade Estimate Report on Foreign Trade Barriers* (Washington, DC: March 29, 2009), p. 97.

253. U.S. Trade Representative, *2009 National Trade Estimate Report on Foreign Trade Barriers* (Washington, DC: March 29, 2009), p. 97.

254. U.S. Trade Representative, *2008 Report to Congress on China’s WTO Compliance* (Washington, DC: December 2008), pp. 29–30.

255. U.S. Trade Representative, *2008 Report to Congress on China’s WTO Compliance* (Washington, DC: December 2008), pp. 5–6.

256. *USTR News*, “United States Files WTO Case Against China Over Export Restraints on Raw Materials” (Washington, DC: U.S. Trade Representative, June 23, 2009).

257. STRATFOR, “China: Alleged WTO Violations and Commodity Prices” (Austin, TX: June 24, 2009).

258. The rare earth elements group is comprised of 17 minerals—scandium, yttrium, and the 15 lanthanoids—and they play a crucial role in many advanced technological devices. For more information, see, for example, Gordon B. Haxel, James B. Hedrick, and Greta J. Orris, “Rare Earth Elements—Critical Resources for High Technology,” U.S. Geological Survey Fact Sheet 087–02 (Reston, VA: 2002). <http://pubs.usgs.gov/fs/2002/fs087-02/fs087-02.pdf>.

259. Keith Bradsher, “China Tightens Grip on Rare Minerals,” *New York Times*, September 1, 2009.

260. Xiao Yu and Eugene Tang, “China Considers Rare-Earth Reserve in Inner Mongolia,” *Bloomberg*, September 2, 2009.

261. Chuin-Wei Yap, “China Plays Down Rare Earth Fears,” *Wall Street Journal*, September 2, 2009.

262. Keith Bradsher, “Backpedaling, China Eases Proposal to Ban Exports of Some Vital Minerals,” *New York Times*, September 3, 2009.

<http://www.nytimes.com/2009/09/04/business/global/04minerals.html>.