Nickel Futures Trading Manual

(2014)

Contents

Appendix

General Introduction

Ⅰ.Physicochemical Properties and applications

1. Physicochemical Properties

Metal nickel has chemical symbol of Ni, atomic number of 28, its density is 8.902g/cm3, the melting point is 1453℃ and boiling point is 27321453℃. Nickel is a metal close to silver white, at low temperature it is of outstanding strength and ductility; at ambient temperature its surface will form tight oxide film in humid air that prevents continuous oxidation, nickel also readily forms alloy with other metals.

2.Main Purposes

Nickel is an important industrial metal, and is extensively applied with iron and steel industry, mechanical industry, architecture and chemical industry. The specific purposes include: Firstly, it is used a metal material such as preparation of stainless steel, heat proof alloy steel and different alloys; secondly it is used for electric plating, a surface layer that is durable and corrosion resistant is covered on steel and other metal as base, the corrosion resistance is better that zinc plating; thirdly, nickel is used as catalyst in the hydrogenation process in petrochemical; fourthly nickel is used as chemical power source and is the raw material to prepare nickel-hydrogen battery and Ni-Cd battery; fifthly, nickel is used to produce dyestuff and pigment, ceramic and ferrite as new concept materials.

3.Classifications

Nickel can be divided into primary nickel and regenerated nickel by difference in production raw material, the raw material of primary nickel comes from nickel mine, and the raw material for regenerated nickel comes from nickel containing scrap. The primary nickel includes electrolysis nickel, ferronickel and nickel salt. Where the electrolysis nickel can be divided into five specifications i.e. Ni9999, Ni9996, Ni9990, Ni9950, Ni9920 per national code GB/T6516-2010; ferronickel is also called nickel containing pig iron and is the alloy of nickel and iron, and is produced by nickel laterite ore through pyrometallurgy and sintering, the nickel content in ferronickel is from 5% to 30%, and it is classified into high nickel pig iron, medium nickel pig iron and low nickel pig iron per nickel content.

Ⅱ.International Nickel Market

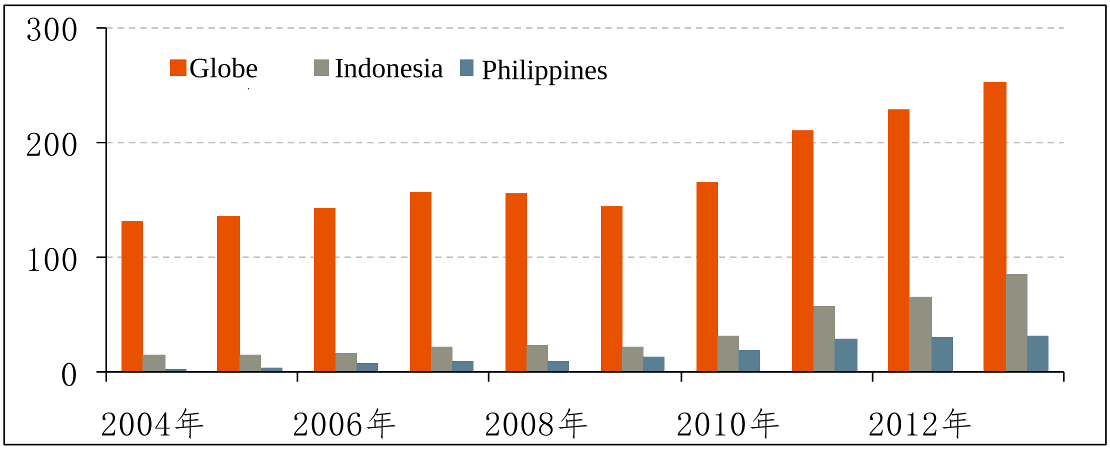
1. Nickel Production

- Nickel Production

The nickel mineral resource is mostly divided into nickel sulfide ore and nickel oxide ore (which is also called laterite-nickel ore. In recent years, with the gradual decline of reserves for nickel sulfide ore globally, the ratio of laterite-nickel ore production is up to 70%.

The global nickel ore production (converted to nickel metal quantity) has grown from 1.31 MTA in 2004 to 2.53 MTA in 2013. Where Indonesia and Philippines with rich production of laterite-nickel ore are the top two producers globally, the production in 2013 was 850 KTA and 310 KTA.

Chart 1: Global nickel ore production from 2004 to 2013

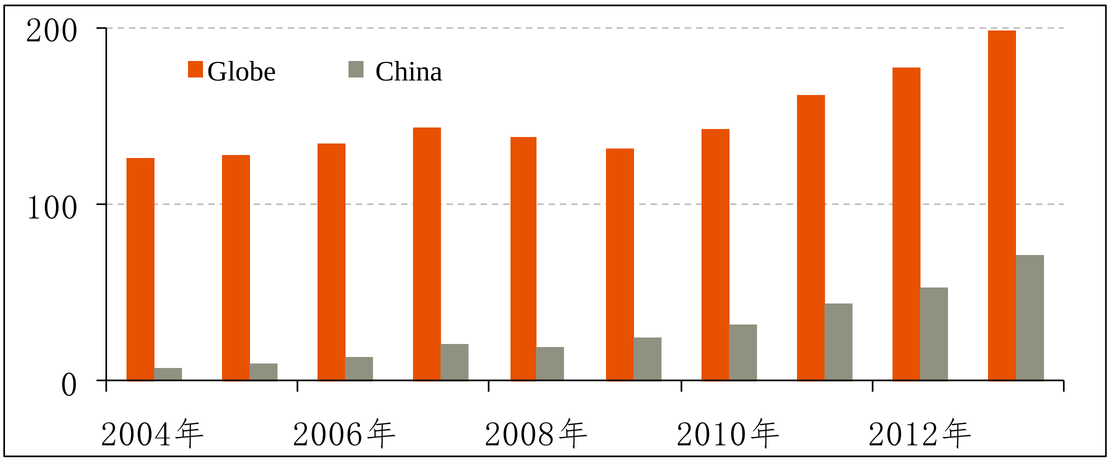


Source: CRU

➢ Production of Primary Nickel

The global primary nickel production (as converted to nickel metal quantity) has grown from 1.26 MTA in 2004 to 1.98 MTA steadily. Where China is the largest primary nickel producer, and the production of primary nickel in Russia, Japan, Canada and Australia is No. 2 to 5 in the world.

Chart 2: Global primary nickel production from 2004 to 2013 (in 10 KTA)

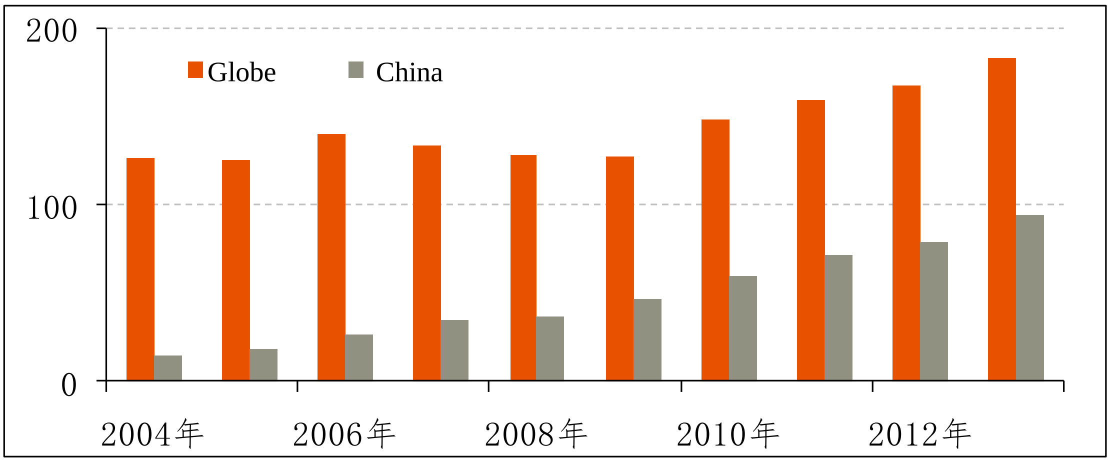


Source: CRU

2.Nickel Consumption

According to the statistics from CRU, The global primary nickel consumption grew from 1.27 MTA in 2004 to 1.83 MTA in 2013. Where China is the larger consumer for primary nickel globally, whose consumption in 2013 accounted for more than 50% of the global total, the primary nickel consumption in the US, Japan, Korea and Germany were No. 2 to 5.

Chart 3: Global primary nickel consumption from 2004 to 2013 (10 KTA)



Source: CRU

3.Nickel Trade

According to the statistics by GTIS (Global Trade Information Service), the refined nickel export as reported globally in 2013 was roughly 800 KTA, and Russia, Canada, Holland, Norway and Singapore were the main exporters; the refined nickel imports as reported globally were about 870 KTA, China, Holland, the US, Malaysia, Germany and Singapore were the main importers. Although Holland, Malaysia and Singapore are not main producers and consumers of refined nickel, LME had set up delivery warehouses in those three nations, Holland, Malaysia and Singapore thus became the globally important refined nickel logistics and distribution centers.

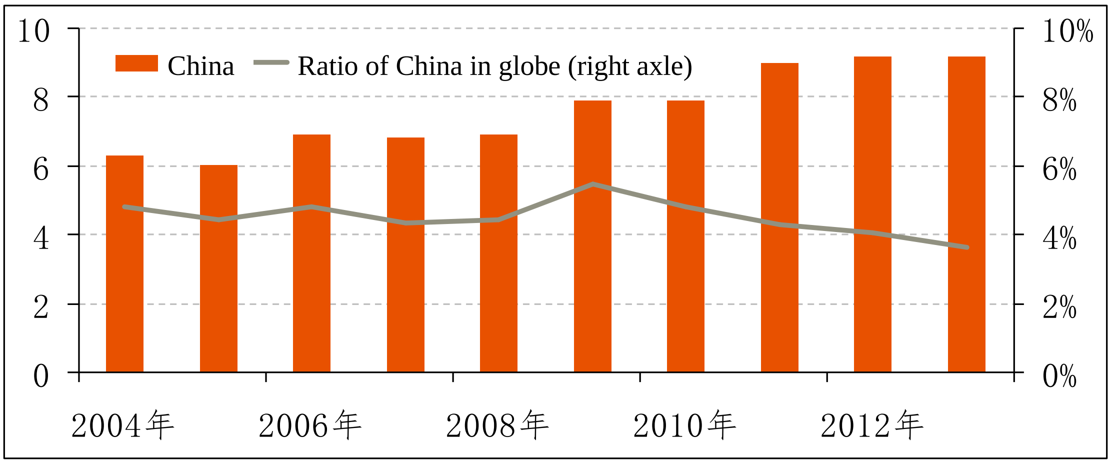
Ⅲ.Domestic Nickel Market

1.Nickel Production

➢ Nickel Ore Production

China nickel ore resource is limited, and the international dependence of nickel ore resource is high. In 2013 China nickel ore production (as converted to nickel metal quantity) was roughly 92 KTA, where the share of Gansu province was 80%, and the share of Gansu, Jilin and Xinjiang exceeded 90%.

Chart 4: China nickel ore production (in 10 KTA) from 2004 to 2013

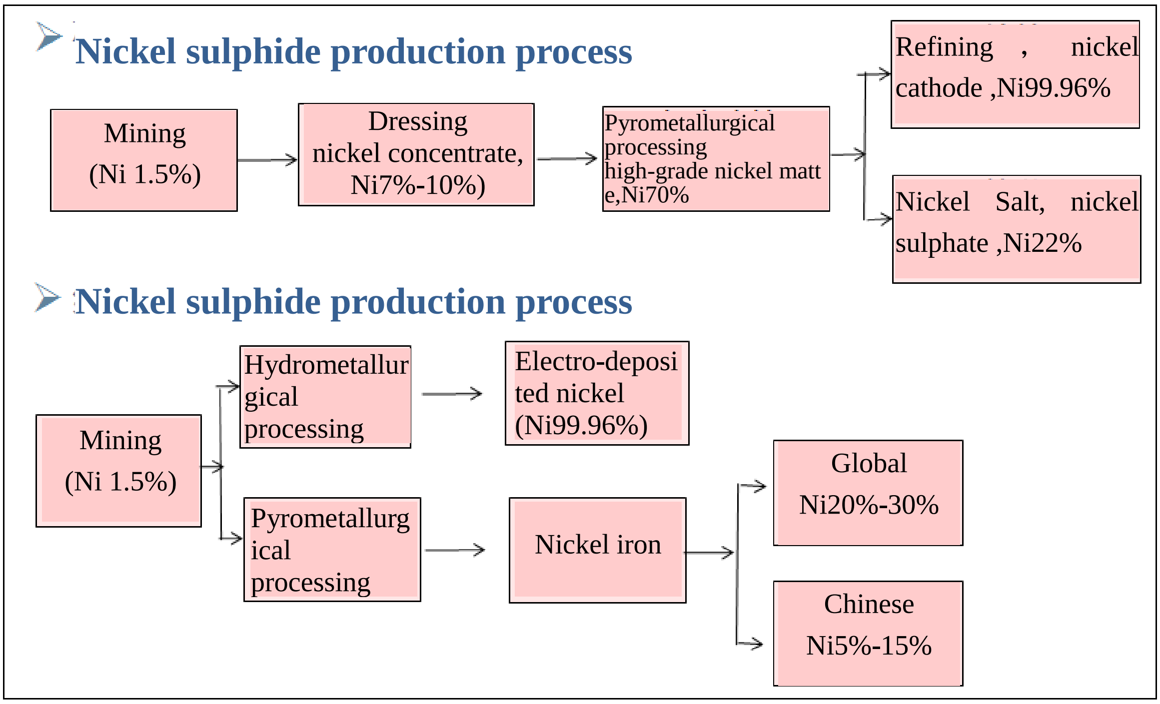


Source: CRU

➢ Production Process

The production process of nickel is complicated because of the low-grade nickel ores with complex compositions and inter-grown minerals. Based on the classification, grade and customer requirements, a nickel production process may produce a number of different products, e.g. pure products like nickel squares, pellets and rounds, and non-pure products like nickel oxide sinters and nickel-iron, etc. Chart 4 shows the production process of nickel products.

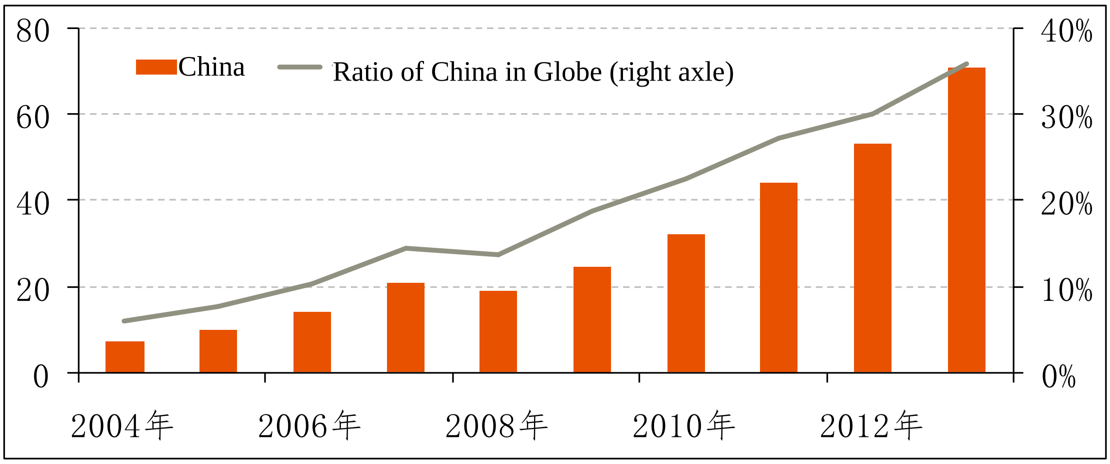
Chart 5: Nickel Production Process



➢ Nickel Production

According to the statistics from the CRU, China primary nickel production (as converted to nickel metal quantity) grew from 76 KTA in 2004 to 710 KTA in 2013, the world share rose from 6% to 36%. Where the electrolysis nickel production was up from 76 KTA in 2004 to 27.8 KTA in 2013, ferronickel production (as converted to nickel metal quantity) was only 3 KTA in 2005 and exceeded 400 KTA in 2013.

Chart 6: China Primary Nickel Production (in 10 KTA) from 2004 to 2013

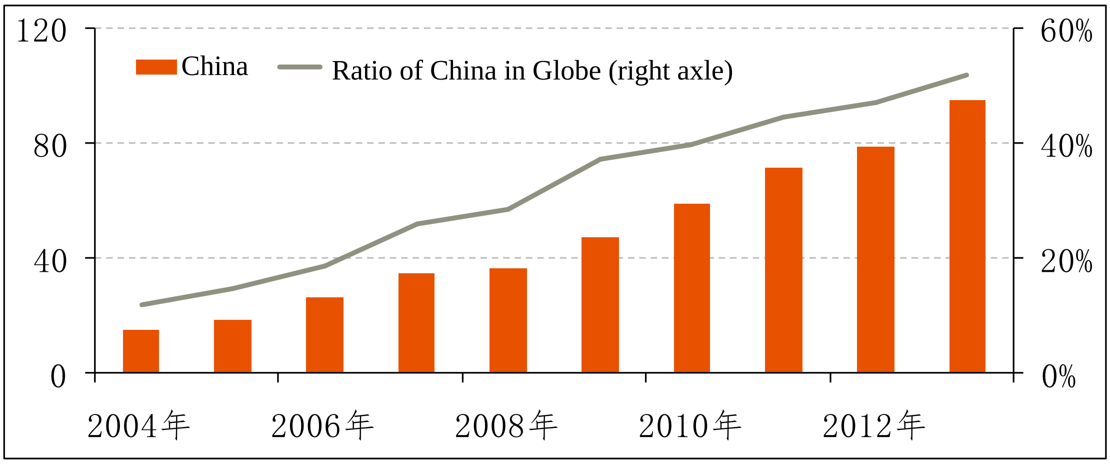


Source: CRU

2. Nickel Consumption

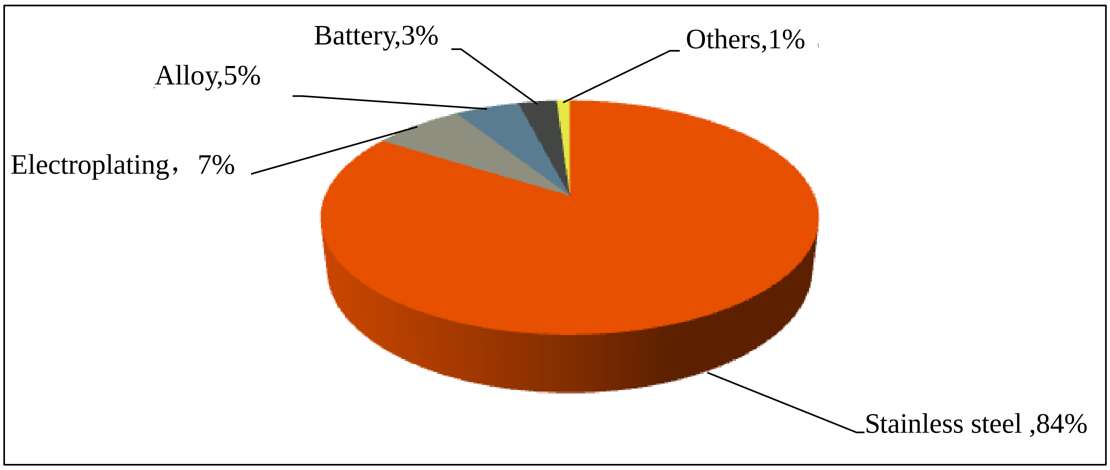
According to the statistics from the CRU, China consumption of primary nickel was up from 150 KTA in 2004 to 950 KTA in 2013, the share in world total consumption rose from 12% in 2003 to 52% in 2013. Stainless steel is the major downstream consumption sector for nickel. Over 60% global nickel demand is from the stainless steelmakers. In China, over 84% nickel demand is from domestic stainless steelmakers. Among other, 300 series stainless steel accounts for about 50% of total Chinese stainless steel output.

Chart 7: 2004-2013 Chinese Primary Nickel Consumption (in 10 KTA)



Source: CRU

Chart 8: Nickel consumption ratio by industry in China 2014

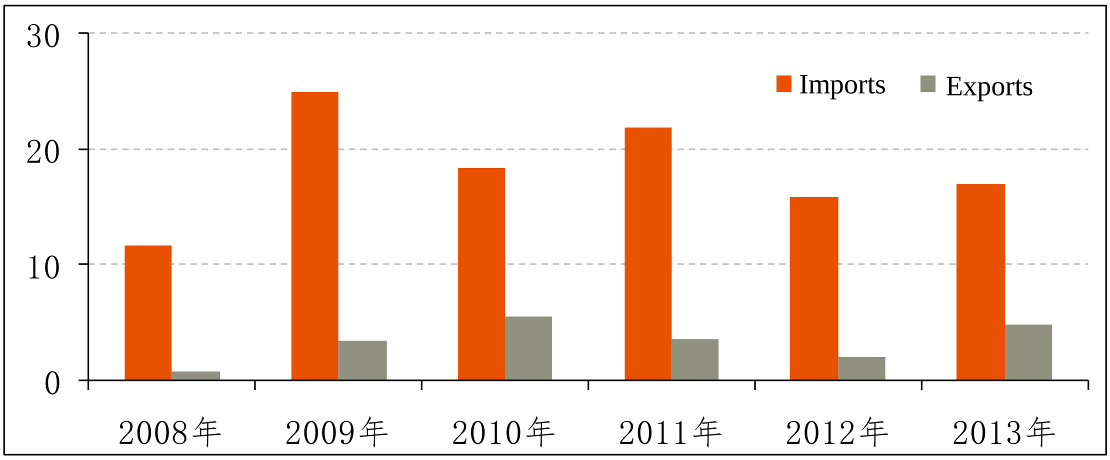


Source: Antaike

3.Nickel Imports/Exports

In recent years, Chinese import of nickel cathode has been maintained at a high level. The major suppliers include Russia, Canada and Norway. Since 2012, due to the significant increase of domestic nickel iron output, the demand of Chinese stainless steelmakers, the major consumer of nickel, has been falling. The key destinations of Chinese nickel export include South Korea, Singapore and Malaysia.

Chart 9: Import/export of electrolysis nickel in China in 2008 to 2013 (in 10 KTA)



Source: General Administration of Customs

Ⅳ.Key Factors Impacting Nickel Price

➢ Supply-demand Relation

According to micro-economic theories, the price of a commodity shall fall when it is over-supplied and rise when it is under-supplied. On the other hand, the demand of the commodity shall decrease when the supply grows along with the rising of price and increase when the supply falls along with the falling of price. This is the interaction between the price and the demand and supply of a commodity.

Stock is a very important indicator of the demand and supply relation. Nickel stock can be classified into two classes: reported stock and unreported stock. The reported stock is also referred to as Visible Stock or Exchange Stock. The unreported stock is also called as Invisible Stock, referring to the stocks belonging to the manufacturers, traders and end users in the world. Since no one reports his stocks on a regular basis, institutions usually base their study over the change of stocks on reported stocks.

➢ Global and domestic economic development

The nickel is one of the most important non-ferrous metals. The nickel consumption is closely related to the economic performance. When the economy of a country or a region is developing rapidly, the nickel consumption will increase, too. Similarly, a sluggish economy shall pull down the nickel consumption in a number of industries and cause great turbulence on nickel market. In a macro-economic analysis, two indicators are very important, i.e. economic growth rate, or the GDP growth rate, and industrial production growth.

➢ The performance of down-stream industries

The nickel is one of the key materials of stainless steel. As a result, the performance of stainless steel industry has an immediate impact on the nickel consumption. It is necessary to study the changes in the stainless steel industry to have a direct view about the changes in the nickel consumption. In addition, electroplating and alloy industries are another two important nickel consumers on the industrial chain. The observation on these two industries shall enable us to understand the nickel demand changes in a big picture.

- Import and Export Policy

Import and export policies, especially the duty policies, are a significant instrument with which a state balances its domestic demand and supply by regulating the import and export volumes of a commodity by way of adjusting the import and export costs of the commodity.

Nickel is an important strategic resource. China tilted its import and export policies to encourage nickel import and discourage nickel export. According to the 2014 Tariff Execution Plan of the Ministry of Finance, Chinese tariff on nickel ore and concentrated ore import is Zero and on nickel export is 15%. Since January 1^{st}, 2014, the import tariff on nickel cathode has been increased to 1% from zero, with the 15% export tariff unchanged.

Indonesia is the largest nickel exporter in the world. Its nickel export accounts for 20% of the total nickel transaction of the world. In 2009, Indonesian Parliament passed a Coal and Minerals Act that forbids nickel ore export from January 12^{th} 2014, in order to improve the added-value of its minerals products by forcing mining companies operating in the Indonesia to establish refining plants. When the Act took effect on January 12^{th}, 2014, the Indonesia nickel laterite export was shut down, leading to a great turbulence on the global nickel market.

- Production cost

Production cost is the foundation of the price of a commodity. When the market price of nickel stays at a level lower than the production cost for a long time, nickel mines and smelters shall voluntarily cut down production, which eventually shall change the supply and demand relation on the market.

Current production cost of a nickel smelter is made up of following factors: concentrated nickel ore price, fuel and power cost, labor cost, production cost and other expenses. The change of the concentrated nickel ore price is the utmost factor influencing the nickel production cost.

SHFE Standard Nickel Cathode Contract Specifications

Standard Nickel Cathode Contract Specifications

Product	Nickel
Contract Size	1 ton/lot
Price Quotation	(RMB) Yuan/ton
Minimum Price Fluctuation	10 Yuan/ton
Daily Price Limit	Within 4% above or below the settlement price of the previous trading day
Contract Series	Monthly contract of the recent 12 months from January to December
Trading Hours	9:00a.m. – 11:30a.m., 1:30p.m. – 3:00p.m., and other trading hours as prescribed by SHFE
Last Trading Day	The 15th day of the delivery month (If it is a public holiday, the Last Trading Day shall be the 1st business day after the holiday)
Delivery Period	5 consecutive business days after the last trading day
Grade and Quality Specifications	Standard products: nickel cathode as prescribed in the National Standard of GB/T 6516-2010 Ni9996, with the total content of nickel and cobalt ≥ 99.96%. Substitutions: nickel cathode as prescribed in the National Standard of GB/T 6516-2010 Ni9996, with the total content of nickel and cobalt ≥ 99.99%, or as prescribed in ASTM B39-79(2013), with the content of nickel ≥ 99.8%.
Delivery Venue	SHFE Certified Delivery Warehouse
Minimum Trade Margin	5% of contract value
Minimum Warranted Delivery Size	6 tons
Settlement Type	Physical Delivery
Contract Symbol	NI
Exchange	SHFE

Appendix to Standard Nickel Cathode Futures Contract of Shanghai Futures Exchange

I. Delivery unit

The contract size of Standard Nickel Cathode Futures Contract is 1 ton per lot and the Delivery Size is 6 tons per warrant. Each delivery shall be carried out based on the integral multiple(s) of each warrant.

II. Quality Specifications

1.Nickel Cathode used for physical delivery must comply with all specifications prescribed in the national standard of GB/T 6516-2010 Ni9996, with the total content of the Nickel and Cobalt ≥ 99.96%. The substitutions used for physical delivery must comply with all specifications prescribed in the national standard of GB/T 6516-2010 Ni9999, with the total content of Nickel and Cobalt >99.99%, or the international standard of ASTM B39-79(2013), with the nickel content >99.8%.

2.Appearance: the Nickel is delivered in the form of plate, with an average thickness ≥ 3mm.

3.Each overlanded and shortlanded warrant shall not exceed ± 3%, and pound weight difference shall not exceed ± 0.1%.

4.Each warrant of nickel cathode must consist of commodity of the same manufacturer, nameplate, registered trade mark, quality grade, shape and approximate weight per piece.

5.Each warrant of nickel cathode must be the registered brand approved by the Exchange and attached with quality certificate.

6.The warrant must be issued by the Exchange approved warehouse for delivery after passing its acceptance check based on applicable regulations.

III. The Exchange approved manufacturers and registered brands

Nickel cathode used for physical delivery must be of the brand registered with the Exchange. The specific registered brands as well as the premium and discount standard will be provided and announced by the Exchange.

IV. Certified Delivery Warehouse

The Exchange will designate and announce the warehouse for delivery. The premium and discount for warehouse for delivery at different locations will also be provided and announced by the Exchange.

1. Trading

1.1Key points of detailed trading rules

- Futures trading activities are defined as the purchase or sale of a futures contract through the Exchange's central order book.
- Trading price is defined as the price of a transaction automatically concluded by the Exchange's Computerized Automatic Trading System at the time when the bid price is equal to or higher than the ask price of orders arranged in the principle of price priority and time priority. It could be any one in the middle of three prices, i.e. bid price, ask price and previous strike price.
- Opening Auction is made five minutes before the opening of the market on each business day.The first four minutes is the time for bids and asks to be offered, and the last one minute is the time for matching. The opening price comes out at the opening of the market.
- Trading Orders are classified as limit order, kill-if-not-fill order, FOK (fill or kill) order, FAK (fill and kill) order and other orders specified by the Exchange.
- The maximum Limit Order (or limited price order) is 500 lots and the minimum trading order is 1 lot. The quotations shall be within the price limits.
- The Exchange adopts a system of Trading Code Registration. Trading code refers to the special code created in accordance with the detailed rules herein for members to trade futures contracts. Trading codes are classified as code of proprietary members and code of investors.
- At the closing of each trading day, the Exchange will disclose the total trading volume of the active month futures contracts of Futures-firm Members and total long/short open interests of such members, total trading volumes of the active month futures contracts of Non Futures-firm Members and total long/short open interests of such members, and the ranking of the top 20 Futures-firm Members in terms of total trading volume and long/short open interests.

1.2 Key points of detailed continuous trading rules

- Continuous Trading refers to the trading sessions beyond the Exchange's trading hours from 09:00 to 11:30 and from 13:30 to 15:00 as is determined by the Exchange. **The trading hours of the continuous trading of Nickel futures shall be from 21:00 to the 01:00 in the next trading day.**
- The first trading session on the trading day refers to the period from the beginning of the continuous trading on the previous business day to the end of the first trading session of the daytime market of the current day.
- The bidding session is carried out within five (5) minutes before the opening of the continuous trading, and it will not be carried out on the daytime market. In case of no transaction occurring during the period of the continuous trading, the bidding session will be postponed to the five (5) minutes before the opening of the daytime market of the next trading day.
- The continuous trading shall only be conducted through remote trading seats. The Exchange shall not handle the account opening, withdrawal of funds or withdrawal of

marketable securities during the period of the continuous trading.

- Average daily price
  - ✓ The Exchange shall release the average daily prices and the average prices of different futures in the 9:00-10:15 trading session as a benchmark price for market participants to conclude a transaction contract.
  - ✓ The average daily price is the volume-weighted average price of contracts traded during the day time trading session (from 9:00 to 15:00).
  - ✓ The average price of contracts during the 9:00-10:15 session is the volume-weighted average price of contracts traded during the 9:00-10:15 trading session.

1.3 Key points of risk management rules

- Price limit

✓ The Exchange applies the Price Limit which sets the maximum price variation for each futures contract during a trading day. The Exchange will, in its sole discretion, adjust the limit price for a futures contract under some special circumstances according to applicable rules.

✓ When a futures contract is traded at the limit price, trades shall be matched with priority given to the bids or the asks which facilitates the close-out of the open interest, except for new positions opened on the current day, and based on the time priority rule.

- Position limit
  - ✓ Position Limit means the maximum size of positions for the longs or the shorts each member or customer may hold in a futures contract as prescribed by the Exchange.
  - ✓ The following fundamental rules shall govern the Position Limit:

1) Different position limits levels are applicable to different period of trading of a contract, and the Exchange shall exercise stringent control over it in the delivery month of the contract;
2) The position limit is imposed on the member and the customer simultaneously to control the risk. Percentage-based position limit shall be imposed on the FF member and fixed-amount position limit shall be imposed on the non-FF member and his customer;
3) The opening of hedging positions shall be subject to the Exchange’s approval.

✓ A customer’s positions held at one or more FF members shall be aggregated to determine whether such open positions exceed the customer’s fixed-amount position limit.

✓ For contracts in nickel futures, by the close of the last trading day of the month prior to the delivery month, each member or each customer shall adjust their speculative positions held through the member, to multiples of six (6) lots and a one-day delay is allowed under special market conditions; in the delivery month, the speculative positions as well as newly opened and closed-out positions shall be held in multiples of six (6) lots.

✓ Percentage-based position limit and fixed-amount position limit for nickel futures contract at different period of trading for an FF member, a non-FF member and a customer are shown as follows:

	From the date of listing to the Delivery Month		From the date of listing to the last trading day of the second month prior to the Delivery Month		First month prior to the Delivery Month		Delivery Month	
	Open interest in one futures contract (lots)	Position limit ratio (%)	Position limits (in lots)		Position limits (in lots)		Position limits (in lots)	
		FFM	Non-FFM	Customer	Non-FFM	Customer	Non-FFM	Customer
Nickel	≥240,000	25	9000	9000	3000	3000	600	600

Note: The “open interest in one futures contract" in the table shall be calculated on a two-sided basis, and the position limits on FFMs, Non-FFMs and customers on a one-sided basis; and the position limits on FFMs shall be the Baseline Position Limit.

- Forced position liquidation
  - ✓ The Forced Position Liquidation means the mandatory action the Exchange takes to close out the positions of a member or a customer who violates any applicable rules of the Exchange.
  - ✓ The Exchange shall impose forced position liquidation on the member or the customer, if:
    1) The balance of the clearing deposit of such member falls below zero (0) and he fails to meet the margin requirement within the specified time limit;
    2) His open interest exceeds the size of the applicable position limit;
    3) Such member or customer fails to bring his positions in a futures contract to multiples as required within the specified time limit;
    4) Such member or customer violates any Exchange’s rules that warrants a forced position liquidation;
    5) Any emergency happens that warrants a forced position liquidation;

1.4 Key points of hedging rules

- The application of hedging positions
- ✓ The hedging positions for nickel futures can be classified into regular month hedging positions (months during the period from the date of listing of the contract till the last trading day of the second month prior to the delivery month) and nearby delivery month hedging positions (the period covering the first month prior to the delivery month and the delivery month).
- ✓ Each member or customer applying for regular month hedging positions shall complete an Application (Approval) Form for Regular Month Hedging Positions on the Exchange, attach it with all documents required by the Exchange, and submit the application before the last trading day of the second month prior to the delivery month of the involved contracts. The Exchange will not accept any applications for regular month hedging positions after the expiry of such period. Each member or customer may each time apply for regular month hedging positions in various contracts.

- ✓ Each member or customer applying for nearby delivery month hedging positions shall complete an Application (Approval) Form for Nearby delivery month Hedging Positions on the Exchange, attach it with all documents required by the Exchange, and submit the application within the period from the first trading day of the third month prior to the delivery month to the last trading day of the month prior to the delivery month of the contract. The Exchange will not accept any applications for nearby delivery month hedging positions after the expiry of such period.
- ✓ The aggregate amounts of nearby delivery month hedging positions for all the contract month of a calendar year shall not exceed the amounts of the production capacity or the production plan of the year, or the business profile of the last calendar year.

- ➢ Hedge trading

- ✓ The member or customer who is approved to hold hedging positions shall establish positions pursuant to whether the positions approved are long or short positions and the amounts of the positions before the closing of the market of the third trading day prior to the last trading day specified in the contract. It shall be deemed a waiver of the hedging positions if the positions are not established in the prescribed time limit above.
- ✓ For nickel futures, new hedging position is not available since the first trading day of the delivery month of the contract.
- ✓ For nickel futures, the measures of adjustment on the holding of hedging positions in multiples in the nearby delivery month can refer to those on the holding of speculative positions in multiples.
- ✓ In the delivery month, each member or customer, obtaining the nearby delivery month hedging positions, who is the seller of the hedging positions may apply the standard warrants as a warranty for the performance of the futures contract for a number of delivery months in accordance with the number of such standard warrants, and as a collateral for the trade margin deposited for the corresponding positions.

- ➢ Regulation

- ✓ The Exchange shall, after receiving the application for the hedging positions, review the application within five (5) trading days.
- ✓ The member or customer shall apply to the Exchange in a timely manner for adjustment in hedging positions.
- ✓ The member or customer shall make adjustments on the hedging positions above the approved position (or the position limit previously set) on his own initiative before the ending of the first session of trading on the following trading day; The Exchange has the right to exercise forced position liquidation if the adjustments are not made in the prescribed time limit or the requirements are still not satisfied after the adjustments.
- ✓ In the event that the systematic risk of the market increases that may lead to the disruption of the market, the Exchange shall make reduction in the positions pursuant to the applicable rules of the Exchange. The Exchange shall reduce the speculative positions first and then reduce the hedging positions.

1.5 Key points of spread trading rules

- ➢ Spread trading and speculative trading is recognized as non-hedge trading. The schedule of percentage-based and fixed position limit for each futures contract in different periods of time, as prescribed in the Risk Management Rules of the Shanghai Futures Exchange, is applicable to non-hedging positions. The non-hedging positions of each non-FF member or customer will be expanded by the spread positions of the non-FF member or the customer.

- The spread positions for nickel futures can be classified into regular month spread positions (months during the period from the date of listing of the contract till the last trading day of the second month prior to the delivery month) and nearby delivery month spread positions (the period covering the first month prior to the delivery month and the delivery month).
- Application and approval for spread positions
  - ✓ Each customer in application for spread positions shall submit an application to any one of his carrying FF members where he owns an account with. That FF member shall review the application and make submission on the customer's behalf to the Exchange pursuant to these Spread Trading Rules. Each non-FF member will apply to the Exchange on his own account.
  - ✓ Each non-FF member or customer shall submit the following documents in application for the regular month spread positions of each product: 1) Application and Approval Form for Regular Month Spread Positions of the Shanghai Futures Exchange; 2) Spread trading schedule (e.g. source of funds, size of position, calendar spread or inter-commodity spread); and 3) Other documents as required by the Exchange.
  - ✓ The regular month spread position, as approved by the Exchange, will remain valid for the product that the member or customer applies for.
  - ✓ Each non-FF member or customer shall provide the following documents in application for the nearby delivery month spread positions of each contract: 1) Application and Approval Form for Nearby delivery month Spread Positions of the Shanghai Futures Exchange; 2) spread trading schedule (e.g. source of funds, size of position, for calendar spread or inter-commodity spread, arrangements of position addition or reduction, will of delivery, etc.); and 3) a price divergence analysis of the contract that the member or customer applies for and other documents as required by the Exchange.
  - ✓ The application for the nearby delivery month spread positions shall be submitted between the 1st trading day of the 2nd month prior to the delivery month of the contract and the last trading day of the 1st month prior to the delivery month. Otherwise, the Exchange will not accept the application.
- Spread trading
  - ✓ Total non-hedging positions held by the same customer at different FF members shall not exceed the size as prescribed by the Risk Management Rules of the Shanghai Futures Exchange for the proportion of position limit for such futures contract in different periods of time in addition to the spread positions of the same periods of time, or the total size as prescribed by the Risk Management Rules of the Shanghai Futures Exchange for the size of position limit in addition to the spread positions of the same periods of time.
- Regulation
  - ✓ The Exchange shall complete the review of the application for spread positions within five(5) trading days upon receipt of such application.
  - ✓ In the event that the total non-hedging positions that any non-FF member or customer holds exceed the size as prescribed by the Risk Management Rules of the Shanghai Futures Exchange for the proportion of position limit for such futures contract in different periods of

time in addition to the spread positions of the same periods of time, or the total size as prescribed by the Risk Management Rules of the Shanghai Futures Exchange for the size of position limit in addition to the spread positions of the same periods of time, he shall, prior to the closing of the 1st trading session on the next trading day, make adjustments on their own account. Any failure to make such adjustments by the prescribed time limit or below the size described above will be subjected by the Exchange to forced position liquidation.

2. Clearing rules

2.1 Key points of detailed clearing rules

- Clearing refers to the activities on or through the Exchange of calculating and transferring margins, gains and losses,, fees of transaction and delivery, and other types of payment of the member pursuant to the trading results and the applicable rules of the Exchange.
- The Exchange applies regimes including the Margin Requirement, the Marking-to-Market and the Risk Reserve Fund to perform its clearing obligations.
- The Exchange clears its members only. Each futures firm member, or each FF member, clears his customers.
- Regular operations
  - ✓ The Exchange shall open a clearing account at each certified settlement bank to hold margin and funds of the member. Each member shall open a futures settlement account at one or more certified settlement banks to maintain margin and funds related to the clearing process. Transfer of funds related to futures trading activities shall be made available through the Exchange’s clearing account and each member’s futures settlement account.
  - ✓ The Exchange applies the Margin Requirement regime. All margins shall be divided into the clearing deposit and trade margin. Clearing deposit means the funds each member deposits to the Exchange’s clearing account for the purpose of his futures trading activities including trading, clearing and settlement. The clearing deposit is a type of margin that is not yet applied to the open interest of each member. The trade margin means the funds the member deposits to the Exchange’s clearing account to guarantee his performance under the contracts he holds. Trade margin is a type of margin that is already applied to the open interest of each member.
  - ✓ The Exchange applies the daily Marking-to-Market regime. According to the Marketing-to-Market regime, after the close of each trading day, the Exchange shall apply the settlement price of each contract to calculate the gains and losses, trade margin, transaction fees, taxes on each trade that is executed and transfer the funds due on a net basis as either a credit or a debit to the member’s clearing deposit.
- Physical delivery settlement
  - ✓ The final settlement price of a futures contract shall be the settlement price on its last trading day. The final settlement price shall serve as the basis for pricing the goods for warranting, in addition to which, price differentials owing to the difference in grades, qualifications and the location of the certified delivery warehouses, like benchmark warehouses versus non-benchmark warehouses, shall be applied.
  - ✓ The Exchange shall issue the value-added tax invoice, or the VAT invoice, to the member (buyer) and shall collect the VAT invoice from the member (seller). The member (buyer) shall issue the VAT invoice to the customer (buyer) and collect the VAT invoice from the Exchange. The member (seller) shall issue the VAT invoice to the Exchange and collect the VAT invoice from the customer (seller).
  - ✓ The member (seller) shall deliver the VAT invoice to the Exchange on the last delivery day at the latest.

- ✓ Within the delivery period, if the prescribed procedures relating to the payment for delivery are concluded by 14:00 hours on the current day by the member (buyer), the Exchange shall disburse on that day the margin on the positions used for physical delivery. If the prescribed procedures are completed after 14:00 hours on the current day by the member (buyer), the Exchange shall disburse the margin on the following trading day.

- ➢ Marketable securities
  - ✓ A member may, subject to the Exchange's approval, deposit marketable securities to meet the margin requirements, although gains or losses, fees and taxes shall be paid in cash. The customer shall authorize his FF member to deposit the marketable securities on his behalf.
  - ✓ The marketable securities referred to in these Clearing Rules are limited to the following assets: 1) standard warrant; 2) other classes approved by the Exchange.
  - ✓ The value of the marketable securities shall be calculated as follows: In the case of a standard warrant being applied to meet the margin requirements, the settlement price for the day of the nearest delivery month contract underlying the product on warrant will serve as the reference price for calculating the market value of the standard warrant. The amount that may be used as collateral, however, shall not exceed 80% of the market value of the standard warrant. The discounted value means the discounted market value of the marketable securities that are used as collaterals to meet the margin requirements. The reference prices of other classes of the marketable securities applied to meet the margin requirements shall be determined by the Exchange.
  - ✓ The Exchange shall allot to each member a maximum value available which refers to the total value of marketable securities that may be used to meet the margin requirements. That sum is four (4) times (the allotting multiplier) the member's cash assets held in the Exchange's clearing account. The Exchange, in his sole discretion, may adjust the allotting multiplier for any member based on the member's market risk profile and credit conditions.
  - ✓ The smaller one that is either the discounted value or the maximum value available will be designated by the Exchange as the actual value available of the member's marketable securities to meet the margin requirements.
  - ✓ If the member intends to withdraw the marketable securities for use as collaterals, he shall first make up for the deficiency that will result from such a withdrawal. Only when the deficiency is satisfied may the member proceed to withdraw the marketable securities.

2.2 Key points of trading margin regime

- ➢ The Exchange applies a minimum trade margin rate. The minimum trade margin rate of nickel futures is 5% of the contract's notional value.
  - ✓ When the following events or conditions occur in the process of trading in a futures contract, the Exchange may, in its sole discretion, adjust the trade margin for a contract:
    1) open interest reaches a fixed level;
    2) the delivery period approaches;
    3) the price variation of a contract amounts to a fixed level for a consecutive number of trading days;
    4) a contract reaches its limit price for a consecutive number of trading days;

5) a long public holiday is approaching;

6) the Exchange, in its discretion, decides that the risk of the market is increasing;

7) other events or conditions the Exchange deems necessary to adjust the trade margin for a contract.

- ➢ The Exchange applies different rates of trade margin for a futures contract based on its amount of open interest and the different period of trading from its listing to its last trading day.

✓ Trade margin for the nickel futures contract based on the amount of open interest:

As of the first trading day of the third month prior to the delivery month, when the open interest (X) amounts to	Margin rate (Nickel)
X≤240,000	5%
240,000＜X≤360,000	8%
X＞360,000	10%

Note: X refers to the gross open interest in lots of all the longs and shorts of a futures contract.

✓ In the process of trading in a futures contract, when its open interest reaches the levels as set forth in above Table, no adjustment is to be made to the trade margin. Nonetheless, at the time of daily clearing, when the futures contract's open interest reaches the levels as set forth in the above Table, the Exchange will, accordingly, adjust and access the trade margin for all the long and short positions in that contract pursuant to the rate specified in the Table. If the holder of a long or short position becomes insufficient with his margins, he shall deposit funds to meet the margin requirements by the opening of the next trading day.

- ➢ The Exchange shall set the rates of the trade margin at the different period of trading from the listing to the last trading day near the delivery period of a futures contract.

✓ Margins required throughout the life of the nickel futures contracts

Timing	Margin Rate
As from the date of listing	5%
As from the first trading day of the first month prior to the Delivery Month	10%
As from the first trading day of the Delivery Month	15%
As from the second trading day prior to the last trading day	20%

- ➢ When the price variation in aggregate reaches 10% or more on three (3) consecutive trading days, or when the price variation in aggregate reaches 12% or more on four (4) consecutive trading days, or when the price variation in aggregate reaches 14% or more on five (5) consecutive trading days, the Exchange may, in its sole discretion, exercise the following one or more measures: 1) require additional trade margins from the longs or shorts, or from both the longs and shorts, and/or, at the same or different rates, and/or from a part of or all the members; 2) limit the withdrawal of funds to a part of or all the members; 3) suspend the opening of new positions for a part of or all of the members; 4) adjust the limit price, but not to over twenty percent (20%) up or down; 5) order the liquidation of positions by a prescribed deadline; and/or exercise forced position liquidation.

- Margins required for nickel futures when the limit price has been hit in the same direction for three (3) consecutive trading days

Trading day	Price variation	Margin rates for trading	Margin rates for settlement
D1	X%	Y%	price variation of D2+ 2%
D2	X%+3%	price variation of D2+ 2%	price variation of D3+ 2%
D3	X%+5%	price variation of D3 + 2%	price variation of D3+ 2%

Note: X% refers to the price variation of nickel futures on D1.

Note: Y% refers to the margin rate for nickel futures on D1.

3. Delivery rules

3.1 Procedures of delivery

- Physical delivery refers to the process of an exchange of the ownership of the commodity underlying a futures contract since its expiration by closing out its outstanding positions.
- All the outstanding positions of a matured futures contract shall be closed out by physical delivery since the last trading day for its holder to perform the obligations. Physical delivery on the part of a client shall be deal by its member, in whose name it is processed on the Exchange.
- **A client unable to provide or accept VAT invoice are not approved of physical delivery.**
- Since the closing of the nearest trading day but two prior to the last trading day of a futures contract, a natural person client shall hold nil outstanding position. Since the nearest trading day but one prior to the last trading day of a futures contract, the outstanding position of it by a natural person client shall be closed out by the Exchange.
- Physical delivery shall be completed within the delivery timeframe that is specified by a futures contract. A delivery timeframe refers to the five consecutive business days succeeding the last trading day of the futures contract. These five days are named the First, Second, Third, Fourth and Fifth Delivery Day, and the Fifth one is the last delivery day.

Delivery workflow

Delivery day	Buyer	Seller
1st delivery day	A buyer submits to the Exchange an intention for commodities which include product, trademarks, quantity and name of the designated delivery warehouse.	A seller transfers to the Exchange via the Standard Warrant Management System a valid standard warrant of which the storage fees have been cleared.
2nd delivery day	The Exchange collects those submitted warrants to set up a pool, out of which it allocates to the buyers. The allocation is conducted in principle of time of intent submission superiority, rounding of quantity, matching in the vicinity and resource availability.	
3rd delivery day	The buyer shall pay for the delivery by 14:00 to the Exchange and obtains the standard warrants.	The Exchange shall extend the payment by 16:00 to the seller, though, under certain exceptional circumstances, the Exchange can withhold the payment.
4th and 5th delivery days		The short position holder submits VAT invoice.

3.2 Delivery of nickel futures

Minimum delivery size	6 tons
Grade and quality qualifications	See the Nickel Cathode Contract Specifications of the Shanghai Futures Exchange
Packaging	The underlying nickel cathode that each warrant represents shall be produced by the same producer and of the same registered trademark, quality grade, shape, and set weight. The registered producer may decide, in his sole discretion, the weight of each set, provided that the sets form a minimum delivery size. Each weight set shall be assembled with rust-resistant steel straps (30-32*0.9-1.0mm) in a double parallel-cross manner or other methods of a similar strength. The strapping shall be reliable. The goods marks and set weight shall be easy to see and securely attached. If the goods arrive with broken steel straps, severe rust or corrosion, they shall be reassembled with steel straps as specified in the Detailed Delivery Rules of SHFE before they are delivered. Any costs incurred in the reassembly shall be borne by the owner.
Necessary certificates	Domestic product: the product quality proof issued by the registered producer. Imported product: the product quality proof, the production origin proof, the quality assay report, the customs import tariff payment certificate and the customs VAT levy certificate. These certificates shall not be valid unless verified by the Exchange.
Weight difference	Differences between standard warrant weight and actual delivery weight shall not exceed three percent (3%).
Scale difference	Scale difference shall not exceed one-tenths of a percent (0.1%).
Considerations	During the delivery period, if the procedures with respect to the standard warrant, the VAT invoice, and payment are completed by 14:00 hours on the current day, the Exchange shall refund on that day the margin on the delivered positions. If the procedures are completed after 14:00 hours, the Exchange shall refund the margin on the following business day.
Delivery venue	The certified delivery warehouse shall be designated by the Exchange in due course. (See Appendix 2). Nickel cathode for delivery shall be stored indoors.

3.3 Exchange of futures for Physicals

- An exchange futures for physical (EFP) is the process that members (clients), who hold the same month contracts with opposite directions, apply to the Exchange after forming an agreement, and under the approval of the Exchange, mutually offset the positions on the price that is prescribed by the Exchange and exchange the warrants that bear the same amounts, same products and the same direction with the underlying futures contracts on the price that is agreed by the two sides.

Term	Each EFP is exercisable from the first listed day of the EFP contract through the second business day prior to the last business day of the EFP contract delivery month.
Coverage	The EFP shall not apply to any new open positions on the application date but the historical ones of all the listed products on the Exchange.
Delivery settlement price in an EFP	The price that is agreed on between the buyer and seller members (clients).
The positions held by the buyer and seller	Shall be closed out by the Exchange on the settlement price of the same month contract on the previous trading day of the application date by 15:00 hours of it.
Trading margins in an EFP	Shall be counted by the settlement price of the same month contract on the previous trading day of the application date.
Exchange of all documents (e.g. payment, warrants)	Shall be completed by 1400 hours of the trading day succeeding the application date at the Exchange.
Delivery payment in an EFP	Shall be remitted and received via in-house banking transfer.

3.4 Charges and fees

- Parties to a physical delivery shall pay delivery fees to the Exchange. The charge rate on the nickel futures shall be RMB 2 Yuan/ton.
- The fee schedule with respect to the charges the certified delivery warehouse applies to the l oad-in, load-out and storage shall be approved by the Exchange. Please see Appendix 3 for the Fee schedule of nickel futures at the certified delivery warehouse.

Notes:

- Please see The Trading Rules, SHFE Rulebook, for detailed rules about trading.
- Please see The Continuous Trading Rules, SHFE Rulebook, for the detailed rules about the continuous trading.
- Please see The Risk Management Rules, SHFE Rulebook, for the detailed rules about the risk control.
- Please see The Hedging Rules, SHFE Rulebook, for the detailed rules about the hedge trading.
- Please see The Spread Trading Rules, SHFE Rulebook, for the detailed rules about the spread trading.
- Please see The Clearing Rules, SHFE Rulebook, for the detailed rules about the clearing.
- Please see The Delivery Rules, SHFE Rulebook, for the detailed rules about the delivery.
- Please see The Standard Warrant Rules, SHFE Rulebook, for the detailed rules about the standard warrants.

Appendix

Appendix 1: Registered Trademarks, Packaging Standards and the Rate of Premium and Discount of Nickel Futures

No.	Country	Registered Product	Place of origin	Registration Date	Trade mark	Grade/Speculations	Premium and Discount	Size	（kg） Weight	Set/lot
1001	China	Jinchuan Group Co., Ltd.	Jinchang, Gansu Province	201503	Jintuo	Ni9996 (cathode) Ni9996 (Electro-deposited)	Standard	880*860*3	1500	4
1002	China	Sichuan Ni&Co Guorun New Materials Co., Ltd.	Pengshan, Sichuan Province	201503	Guorun	Ni9996 (Electro-deposited)	Standard	910*910*4	1500	4
1003	China	Jiangxi Jiangli Sci&Tech Co.,Ltd	Xinyu, Jiangxi Province	201503	Guorun	Ni9996 (Electro-deposited)	Standard	960*920*4	1500	4
1004	China	Xinjiang Xinxin Mining Industry Co., Ltd.	Bukang, Xinjiang Province	201503	Bofeng	Ni9996 (Electro-deposited)	Standard	950*850*4	1500	4
1005	China	Jilin Jien Nickel Industry Co., Ltd.	Panshi, Jilin Province	201503	Jien	Ni9996 (cathode)	Standard	910*900*8	1500	4
1006	China	Shanxi Huaze Nickel & Cobalt Co., Ltd.	Xi’an, Shanxi	201503	Xuehua	Ni9996 (cathode)	Standard	800*700*6	1000	6

Appendix 2: The Certified Delivery Warehouses of Nickel Futures

No.	Location	Name	Address
1	Shanghai	Shanghai Dachang Logistic Center, China Storage & Transport Co., Ltd.	Nanda Road No. 137, Baoshan District, Shanghai Municipality
2	Shanghai	Tianwei Warehousing Co., Ltd., Shanghai Guochu Group	Xingta Road No. 1289, Huangdu Industrial Park, Jiading District, Shanghai Municipality
3	Shanghai	Jinshu Warehousing (Shanghai) Co., Ltd., SIPG	Anda Road No.240, Baoshan District, Shanghai Municipality
4	Jiangsu Province	Wuxi Logistic Center, CMST Development Co., Ltd.	Chengnan Road No. 32-1, Wuxi City, Jiangsu Province
5	Zhejiang Province	Ningbo Jiulongcang Warehousing Co., Ltd.	Pinghai Road No.299, Zhenhai District, Ningbo City, Zhejiang Province
6	Zhejiang Province	Zhejiang Branch No.837, State Reserve Bureau	Datong Road No.331, Zhenhai District, Ningbo City
7	Shandong Province	Shandong Branch No.832, State Reserve Bureau	Wenyang Road No.988, Chengyang District, Qingdao City

Appendix 3: Charges and Fees on Nickel Futures in the Certified Delivery Warehouses

Warehouse Rental	
Warehouse	RMB 1.25 / ton/day
Load-in Charges	
1.Special line	RMB 35 /ton
2. Self-help non-carriage trailer	RMB 30 /ton
3.Self-help Carriage Trailer (incl. TEU trucks)	RMB 40 /ton
Load-out Charges	
1.Special line	RMB 35 /ton
2.Self-help non-carriage trailer	RMB 25 /ton
3.Self-help Carriage Trailer (incl. TEU trucks)	RMB 35 /ton
Carriage application brokerage	RMB 5 /ton
Pick-up and shipping brokerage	RMB 2 /ton
Packaging	RMB 40 /ton
Ownership transfer	RMB 3 /ton

Appendix 4: Exchange Certified Assayers for Nickel Futures

No.	Organization
1	China Certification & Inspection (Group) Co., Ltd.
2	CMST Shanghai Materials Testing Co., Ltd.
3	Industrial Product and Materials Testing Center of Shanghai Entry-Exit Inspection and Quarantine Bureau
4	East China Quality Testing Centre of Nonferrous Metals

Appendix 5: Nickel Futures Closing Price Variation Chart (1990-2014, Nickel, 3-months Contracts, LME)