

The Chinese Patent Law and ITS Comparison with the US Patent Law

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Introduction

The patent system has been well established in majority of the countries worldwide. The rapid rise of the Chinese economy has placed increased focus on China's intellectual property system in terms of both its capacity to protect intellectual property rights and more importantly, its ability to enforce those rights. Unlike the United States, modern China has a very recent history with intellectual property rights. While the Chinese patent system is still evolving, the internal and external pressures on the Chinese government will inevitably lead to the system comparable to those of other developed nations. In the last six years, the number of patent applications of all types filed with the Chinese Patent Office has risen by almost 50,000 applications per year. This article would like to introduce Chinese patent law and practice while taking a comparative approach with the US law in some major aspects such as legislation, patent prosecution, litigation and enforcement.

I. AN OVERVIEW OF PATENT SYSTEM

1.1 Statutory Patent Law

The current Patent Law in China was promulgated in 2000 and effective on July 1, 2001. As the second amendment to the Patent Law which was originally enacted in 1984 and first amended in 1992, the new legislation was made in anticipation of China's accession to the World Trade Organization (the "WTO") and in response to the need for protection of domestic intellectual property rights. The State Intellectual Property Office (the "SIPO"), formerly known as the China Patent Office, began drafting the amendment to the Patent Law in 1998. After several drafts were discussed at three sessions of the Standing Committee of the NPC, the Committee finally passed the revised Patent Law on August 25, 2000. The major changes in the amended Patent Law can be categorized into three aspects, namely, 1) new judicial and administrative protection; 2) improved application procedures; and 3) simplified enforcement procedures. Through the two important amendments, the Patent Law has been compatible with the Agreement on Trade Related Aspects of Intellectual Property (the "TRIPS Agreement").

Under constitutional grant of authority to protect the discoveries of inventors, the US patent statute was enacted by Congress in 1790, nearly two centuries earlier than the creation of the Chinese patent law. From then, the modern patent system was established and hence US is regarded as one of countries that earliest execute patent system in the world. The current Patent Act, which is also referred as 35 USC,

was enacted in July 19, 1952 and came into effect in January 1, 1953. Based on this act, two important amendments in 1994 and 1999 were made. According to the Patent Act, the United States Patent and Trademark Office (the “USPTO”), is the authority to administrate the matters related to patent.

1.2. Government Patent Authorities

In China, the Patent Law confers the official authority of the State Intellectual Property Office (hereinafter, the “SIPO”) to take charge of patent related matters. As a central government agency, SIPO is responsible for examining and granting patents, together with its own branches at different levels of local governments such as provincial or municipal governments. These local branches are responsible for both adjudicating patent disputes and enforcing judicial decisions within their respective jurisdictions. If a party is not satisfied with a local SIPO branch’s decision, it may file a lawsuit in a designated People’s court within the same jurisdiction. From the beginning of the establishment of its patent system, the Chinese government has recognized the complexity of patent disputes and the relative incompetence of many judges sitting on the bench of the People’s court at different levels. To enhance public confidence in the court decisions, the Supreme People’s Court has chosen a number of courts located primarily in the coastal region for trying patent cases.

Unlike its counterpart in China, USPTO is only responsible for examining and granting patents, with no authority to adjudicate patent dispute. Nor is it in charge of enforcing a court decision. The U.S. federal court system (including the district courts, the Court of Appeal of the Federal Circuit and the U.S. Supreme Court) owns the exclusively power to adjudicates patent-related civil lawsuits and the federal and state law enforcement agencies are responsible for enforcing relevant court decisions.

II. PATENT PROSECUTION

2.1. Patent Types and Duration

The types of patent and the protection duration thereof under the Patent Law in China and the Patent Act in US are a little different. Under the Chinese Patent Law, patents are classified into three types, namely, 1) invention patents; 2) utility model patents; and 3) design patents. Different protection duration is granted to the above three types of patents which aim to protect different subject matter in light of different patentable characters. Invention patents are directed to new technological developments relating to products, methods or their

improvements and are protected with a twenty year term since the date of application. The utility model patents and design patents are protected only for ten years.

The most common type of patents in US is the utility patent with a protection term of twenty years from the date of filing, although the patents are not enforceable until the day of issuance. Such utility patents include four types of inventions or discoveries: 1) machines; 2) human made products, 3) compositions of matter; and 4) processing methods. Similar to China, design patents are also available in US which protect ornamental designs for a term of 14 years, which is longer than that in China. There are no utility model patents or equivalent protected in US compared to that in China.

2.2. Utility Model Patent in China

As mentioned above, the utility model patent does not have a counterpart in the U.S. patent law. Also Chinese Patent Law does not have the concept of provisional application as the US patent law does. However, an application for a utility model patent, in more than one respect, is similar to a provisional patent application in the U.S. patent law.

First, there is no substantive examination of an application for a utility model patent. Upon receipt of a utility model patent application, the patent examiner is only responsible for conducting a formality examination. As long as there is no formality defect, the application will be granted in a year. Similarly, a provisional patent application that has met the formality requirements will not be examined by the USPTO’s patent examiner. As long as it has met the formality requirement, the USPTO will issue an official registration number for the provisional application.

Secondly, as a commonly adopted strategy, an inventor may first file a utility model patent application, then file an application for an invention patent directed to the same subject as the utility model patent application within 12 months before the utility model patent is issued and subsequently abandons the utility model patent application. In U.S., the inventor, through filing a provisional patent application, has an additional 12 months to decide whether to file a utility patent application (which is equivalent to China’s invention patent application). If the inventor files a utility patent application within 12 months, the provisional application will be treated as having been abandoned by the inventor.

On the other hand, there are some important differences between the two concepts. First, the utility model patent

application, if not withdrawn, will be granted eventually. In contrast, a provisional application only serves as a placeholder for 12 months. After that, it will expire if the inventor does not file a utility patent application. Second, the benefit of a provisional application is that the inventor can claim the filing date of the provisional application as the priority date of the corresponding formal application. But according to the Chinese Patent Law, the subsequent invention patent application cannot claim the initial filing date of the utility model patent application as its priority date. From this perspective, the utility model patent in the Chinese Patent Law does not seem to be as useful as the provisional patent application in the U.S. patent law.

2.3. Subject Matter Not Patentable

The scope of the patentable subject matter in US is wider than in China. Under the US patent law, almost all the subject (with very limited exceptions such as the nucleus fission) can be granted patent in US, provided that they have satisfied the patentable conditions. In comparison of the loose patent policies in US, the Chinese patent law sets more bars to restrict the items to be patented. In China, the following five categories of subject matter are not patented:

- 1). Scientific discoveries;
- 2). Rules and methods of mental activities;
- 3). Methods for diagnosis or treatment of diseases;
- 4). Animal and plant varieties, not including the processes used in producing the products; and
- 5). Substances obtained by means of nuclear transformation.

The 1984 version of the Chinese Patent Law provided limited protection for biotech and pharmaceutical inventions. Subject matter excluded from protection under the 1984 Patent Law included “methods of diagnosis and treatment of diseases,” “food, drink and seasoning,” “drugs and materials obtained by chemistry methods,” and “animals and plants.” The 1984 Patent Law provided, however, that “methods of making” the above excluded subject matter were patentable. In 1992, the Chinese Patent Law was amended in accordance with China’s obligations under the Memorandum of Understanding between the Government of the People’s Republic of China and the Government of the United States of America on the Protection of Intellectual Property, at which time “food, drink and seasoning” and “drugs and materials obtained by chemistry methods” became patentable subject matter.

The existing patent laws of China classify "methods of diagnosis and treatment of diseases" and "animals and plants"

as non-patentable subject matter. Such prohibition is similar to European patent law. However, China's exclusion of animals and plants from patent protection includes transgenic animals and plants. In the meanwhile methods of making transgenic animals and plants are patentable subject matter as are genetically engineered microorganisms and cells. This provides limited patent protection for transgenic animals and plants. In addition, plants are protected under the New Plant Varieties Protection Regulation in China, which grants exclusive rights to produce and sell a new plant variety.

2.4. Criteria of Patentability

To be patentable under the Chinese patent law, an invention must be novel, inventive and useful, which is analogous to the patentability requirements under U.S. and European patent law. When examining a patent application in China, the SIPO focuses all factors in relation to the three requirements.

Novelty means that "prior to the filing date, an invention or utility model was not described in a domestic or foreign publication, was not publicly used in China, was not otherwise known by the public, or was not described in a patent application by another filed with a patent administrative office of the State Council before the filing date and published after the filing date." (Patent Law of China, Art. 22) Inventiveness means that "comparing to technologies existing prior to the filing date, an invention has noticeable substantive characteristics and non-obvious improvement, or a utility model has substantive characteristics and improvement." (Id.) Usefulness means that "an invention or utility model can make or be of use, and can produce positive effects." (Id.) Novelty is the most important factor for patent examiners to consider when reviewing a patent application. Lack of novelty is also a frequent basis for refusal to examine a patent application.

The novelty requirement under the Chinese patent law allows no prior disclosure of an invention except under limited circumstances. In contrast, under U.S. patent law, a public use, offer to sell or publication of an invention begins a one year grace period in which an inventor to file a patent application. In China, disclosure of an invention before its filing date will bar a patent on the invention, unless the disclosure is made within six month before the filing date the application under one of the following circumstances:

- (i) the invention is first presented in an international meeting organized or recognized by the Chinese government;

- (ii) the invention is first published in an academic or technological meeting organized by national-level academic organizations or relevant administrative agencies of the State Council;
- (iii) the invention is disclosed by another without the consent of the applicant of the patent.

The Chinese Patent Law requires that patent applications directed to inventions made in China by Chinese entities or individuals must be filed first in China before any patent applications can be filed on the invention in foreign countries. Many Chinese inventors, particularly academic researchers, lack the level of sophistication in patent matters of their counterparts in the U.S. This is in part because patent protection is a relatively new development in China. Whereas, in the U.S., implementation of Bayh-Doyle caused a proliferation of technology transfer offices in U.S. academic institutions and a corresponding focus on patent protection by U.S. researchers.

Similar to the requirements set by the Patent Law in China, the patentable subject matter in US must be novel, useful, and not of an obvious nature. The three conditions of novelty, usefulness and non-obviousness generally are the focal points to be considered when the USPTO evaluates the patent applications. Particularly, obviousness is the reason most frequently cited by patent examiners as to why an invention is not patentable.

2.5. “First To File” v.s. “First To Invent”

China, like almost all industrial countries in the world, grants a patent to an applicant who first files the application at the Chinese Patent Office provided that all other patent-granting requirements are met. In contrast, the U.S. grants the patent to an applicant who first makes the invention even if this applicant is not the person who first submits a patent application on the same invention to the USPTO.

From a purely legal perspective, the “first to invent” system seems to be more justifiable since a patent represents an invention that solves a real-life problem, not the application which is nothing more than a legal document. However, from an administrative perspective, the “first to file” approach is more practical in a country like China. The “first to file” approach is judicially efficient and a court can easily determine who is entitled to the patent. By contrast, if adopting the “first to invent” approach, the Chinese courts would see increased disputes about which entitlement to a patent when there

are multiple applications over the same invention, therefore driving up the costs of law suits and creating complexity beyond the competency of the courts.

2.6. No Reissue Procedure In China

Reissue is an administrative procedure conducted by the USPTO to correct an issued patent that suffers from certain errors that must have occurred without any deceptive intention. Reissue gives an invention a chance to broaden the coverage of the originally issued patent if he erred by “claiming less than he had a right to claim in the patent” and wants to obtain claims of broader scope than those appearing in the issued patent. Of course, such broadened claims must be supported by the original patent application’s specification in accordance with 35 U.S.C. §112 and it has to be filed within two years of the issuing date of the original patent. The Chinese Patent Law does not have a reissue procedure. Nor does it allow any attempt of broadening the scope of any pending claim. This is consistent with the European patent law practice; that is, any amendment to a pending claim is supposed to narrow (or at least not broaden) its coverage. Therefore, an applicant who wants to obtain a Chinese patent must be very cautious when drafting the original claims because he or she has no way to recover any unintentionally forfeited right.

2.7 Two-Step Examination Process In China

In China, a patent application needs to pass a two-step examination process to become an issued patent. The first step is called “formality examination” during which a patent examiner checks the formality of the patent application. If there is any formality-related problem, e.g., missing of drawings, the patent examiner will notify the applicant and request an appropriate amendment. If the patent application has satisfied all formality requirements, the SIPO will publish the application in about 18 months from the application’s filing date.

The USPTO also has formality requirements for a valid patent application. What differentiates China and the U.S. is the second step, “substantive examination.” In the U.S., a valid patent application is classified into an art unit in the USPTO and then assigned to a particular patent examiner, who will examine the substance of the patent application assigned to him in a chronological order. A U.S. patent application automatically enters the stage of substantive examination even though there is no such term or the like in the USPTO’s manual.

In China, a valid patent application does not enter the substantive examination automatically. To initiate the substantive examination procedure, an applicant must expressly request substantive examination within three years from the application's filing date or priority date if priority is claimed. Otherwise, the CPO will deem the application has been withdrawn. Therefore, in order to expedite the patent prosecution process, an applicant may request early publication (which carries no extra official cost) by filing an early examination request soon after its application has passed the formality examination.

As prosecuting a patent application becomes more expensive and the examination period becomes longer, there is no sound reason for a patent applicant to submit a patent application and withhold it from entering the stage of substantive examination, in light that there is no additional charge. Probably as an attempt to solve this paradox, Article 35 of the Chinese Patent Law was amended in 1992 allowing the patent office to initiate the substantive examination of a patent application if it deems necessary.

This two-step examination procedure was copied from the European patent law. The Chinese legislature should consider merging these two steps into one in the future so that the patent office will automatically conduct a substantive examination of every valid patent application.

2.8. Disclosure Requirements

The U.S. patent law promulgates three specific disclosure requirements for a U.S. patent application, they are: (1) enablement; (2) best mode; and (3) written description of the invention. Both the first and the third requirements have respective counterparts in the Chinese Patent Law.

Satisfying these disclosure requirements is of paramount importance because a disclosure-related defect cannot be easily cured. If an application is deemed not satisfying the sufficient disclosure requirement, the rejection cannot be overcome by any supplemented technical contents other than prior art submitted by the applicant after the filing date. The primary goal of the sufficient disclosure requirement is to put the public in "possession" of the invention, by providing to persons of ordinary skill in the art a detailed description of how to make and use the invention without undue experimentation.

The Chinese Patent Law does not have the best mode requirement or its equivalent, which requires that an applicant disclose the best way of making or using the invention

known to him on the filing date of the patent application. Unfortunately there is very little case law in the U.S. that elaborates the policy rationale behind this best mode requirement. Even though the U.S. patent law does not require a PCT application satisfy the best mode requirement when the PCT application enters national stage, it is always a good practice to pay a close attention to the best mode requirement when drafting a patent application in Chinese or translating a patent application from Chinese into English.

2.9. Loss of Right Under The Chinese Patent Law

An important subject under 35 U.S.C. §102 is loss of right, which refers to the scenario that an inventor's certain conduct may deprive him of the right to obtain a U.S. patent for his invention. For example, under 35 U.S.C. §102(b), if an invention has been described in a printed publication in any country or if the inventor has put his invention in public use or on sale more than 12 months prior to the filing date of a corresponding U.S. patent application to the invention, the inventor is deemed having forfeited his right to obtain a U.S. patent. This 12-month period can also be interpreted as a grace period provided by the U.S. patent law during which the inventor can exploit the commercial prospect of his invention without losing the right to get a U.S. patent.

If the inventor finds little interest in his invention, he may drop the idea of filing a U.S. patent application and therefore save some money for other purposes. This is an attractive option for many individual inventors who are more likely to be cost-sensitive.

However, the grace period in the Chinese Patent Law is not as generous as its counterpart in the U.S. patent law. First, the grace period is cut in half from 12 months to 6 months. Second, the inventor is only allowed to show his invention in international exhibitions sponsored or recognized by the Chinese government or publish his invention on certain predetermined academic or technological conferences.

III. PATENT ENFORCEMENT AND LITIGATION

Over the past few decades, many high-profile patent infringement cases have been litigated in the U.S. courts. After years of judicial practice and academic research, the U.S. has developed a set of legal doctrines on almost any patent-related dispute. These doctrines, in the form of case law, have a significant impact upon other countries' patent litigation practice. For example, almost all the major judicial doctrines in the U.S. patent litigation practice have their respective counterparts in China's patent litigation practice, such as literal

infringement, contributory infringement, the doctrine of equivalents and the prosecution estoppel. Meanwhile, China has also adopted some of the doctrines to better serve the Chinese society. The following section discusses the structure of Chinese judicial and administrative systems that handle patent litigation.

3.1 Dual System For Patent Enforcement in China

China has a dual system of enforcing patent rights, namely, one system of administrative enforcement and another of judicial enforcement. Patent disputes can be resolved through either system. Administrative actions are usually faster and less expensive than court proceedings. However, courts can award damages, whereas administrative authorities can not. Both administrative authorities and courts can provide injunctive relief, but the administrative authorities jurisdiction is limited. Generally, administrative enforcement is more effective for straight forward cases where there is clear evidence of infringement or wrongdoing, such as counterfeit actions. Courts are better equipped for handling complex cases such as patent infringement cases.

3.2 Administrative enforcement in China

Administrative authorities in China involved in patent enforcement include local intellectual property offices, the Customs Office, and the police. Local intellectual property offices may handle patent infringement matters, mediation of patent disputes, patent false representation, and other patent related disputes. The Chinese Customs Office has the authority in the control of importation and exportation of goods infringing intellectual property rights. The police departments are mostly involved in cracking down on criminal activities against intellectual property rights.

When there is likely a patent infringement, the patent holder or a third party may report to the local branch of Patent Office and request to commence an administrative investigation. Upon the request, the local branch of Patent Office together with the local police shall conduct the administrative seizure or detain against the infringing products. Besides, the infringement of import and export can be stopped through the Chinese Customs. Once the infringement is established, the administrative remedies can be enforced. The infringer may be fined and compelled to cease the infringing activities. However, damages can not be awarded through the administrative procedure.

As matter of fact, the administrative enforcement mechanism in China is more often used by the patent

owners to temporarily stop the infringement than the judicial enforcement venue, although the influence of administrative enforcement does not last very long in general. Statistics show that in 2004, the patent infringement cases handled by the administrative authorities have reached to almost 1,400 in total, twice more than in 2000.

3.3 Judicial Enforcement In China

Judicial enforcement may include civil cases and criminal cases. At the trial level, patent cases are heard by intermediate people's courts located in capital city of each province, and also certain intermediate people's courts and primary people's courts designated by China's Supreme Court. Appeal cases are heard by the high people's courts of the provinces. Appeal from high people's courts' decisions may be filed with the Supreme Court, which decides, in its own discretion, whether to review a case. Courts do not decide patent validity issues directly. A request for patent invalidation must be filed first with the Patent Re-examination Board of the State Intellectual Property Office. After the Patent Re-examination Board issues a decision on the validity of a patent, the relevant parties involved may file a lawsuit before a court to challenge the decision of the Board. The Beijing No.1 Intermediate People's Court is the court that has jurisdiction over the Patent Re-examination Board, and all cases against the Board must be filed with the Beijing No.1 Intermediate People's Court. Severe violation of intellectual property rights can constitute a criminal offense punishable by imprisonment and fines.

The IP tribunal of the Supreme People's Court is primarily responsible for judicial interpretations of Chinese Patent Law and its Implementing Regulations, two most authoritative legal documents in Chinese patent law practice, as well as monitoring local IP tribunals' work. Sometimes, if a patent litigation involves a significant economic interest, the IP tribunal of a Higher People's Court will be the trial court and the IP tribunal of the Supreme People's Court will be the appellate court for this case. Meanwhile, if the IP tribunal of the Supreme People's Court identifies an erroneous decision by a local IP tribunal, it may review the case at its discretion and/or remand the case back to the local IP tribunal. In these two scenarios, the IP tribunal of the Supreme People's Court is similar to the U.S. Federal Circuit.

3.4. Limited Patent Damages In China

Notwithstanding the progress China has made developing its patent system, patent damages remain insignificant in comparison to patent damages in the U.S. Under Chinese patent law, patent infringement damages may be calculated

as lost profits of the patent holder or benefits gained by the infringer. If the lost profits or gained benefits are difficult to determine, but royalty payment references are available, a court may award damages equal to one to three times the royalty payment. If no royalty payment references are available or the references are obviously unreasonable, a court may award damages within the range of RMB 5,000 yuan (approximately US \$625) to RMB 300,000 yuan (approximately US \$37,500), not to exceed a maximum of RMB 500,000 yuan (approximately US \$62,500). Generally, damages awarded for lost profits, gained benefits or royalty payments are not significantly greater than the statutory damages due to the difficulty of calculation.

3.5. Patent Enforcement In US

In the U.S., the federal courts have exclusive subject matter jurisdiction over patent cases. A patentee may file a lawsuit at a federal district court against an alleged patent infringer. If either party does not agree with the district court's decision, he may appeal the decision to the Court of Appeals for the Federal Circuit (CAFC). The federal judges appointed to the Federal Circuit often have extensive technical and patent law training. Many of them are well-respected among patent law practitioners. Therefore, decisions rendered by the Federal Circuit in many instances are virtually final since the U.S. Supreme Court rarely grants certiorari to appeals of the Federal Circuit's decision on patent-related disputes.

The USPTO is just an administrative agency under the Department of Commerce of the U.S. Federal Government. It is responsible for examining patent applications and granting patents to qualified applications. But the USPTO does not have a broad authority of adjudicating patent-related disputes. One exception is the Board of Patent Appeals and Interferences (BPAI), an internal panel under the USPTO. The BPAI is primarily responsible for hearing appeals from patent applicants against patent examiners' decisions in a variety of the USPTO proceedings including refusals to grant patents in ex parte patent examination or reexamination proceedings for determining the validity of an issued patent. Other than patent validity, the USPTO cannot adjudicate most of the patent-related disputes, e.g., a contractual dispute surrounding a patent licensing agreement or a proprietary dispute with respect to the ownership of a patent.

In addition, during an infringement civil lawsuit in US, the defendant may claim that its actions do not constitute infringement or question the validity of the patent, which is then decided by the court. What really differs in China is, if the defendant argues non-infringement on the grounds of the

invalidity of the patent, since the court has no authority on patent validity issue the civil proceeding has to be suspended by the court and the patent office shall take over the case to make judgment of the validity. After the validity judgment is made, the court shall resume the case and decide whether there is an infringement. According to the Patent Law in China, it is the Patent Reexamination Board (hereinafter, the "PRB") of the SPO to decide whether the patent is invalidated, not of the court. In case the decision made by the PRB is not satisfied by any party, the party may appeal to the court for judicial decision on procedural matters on patent validity proceeding, not the substantive issue of the validity.

CONCLUSION

Statistics show that in 2005 the total number of patent applications filed in China has reached 173,327 compared to 406,302 applications in the United States. In the same year 53,305 patents have been issued in China compared to 165,485 patents issued in the United States.

China as a rapidly evolving economy will have its patent system rapidly evolved as well. Since the Chinese economy will continue to grow, domestic companies in China will continue to innovate and to take advantage of its patent laws. Along with the trend that foreign patent applications have increased in China, the increased utilization and enhancement on patent protection and enforcement, particularly by domestic Chinese enterprises, will inevitably drive China's patent system to become comparable to developed nations.