KIM & CHANG

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Newsletter

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PATENT

TRADEMARK, DESIGN, COPYRIGHT & UNFAIR COMPETITION

EDITORS ***Raymis H. KIM, Inchan Andrew KWON, Angela KIM & Cyril K. CHAN***

NEWS

Former Chief Presiding Administrative Judge of the IPTAB Joins Kim & Chang

Kim & Chang Named in IAM Patent 1000: The World's Leading Patent Professionals 2024

Named "South Korea National Law Firm of the Year" – Chambers Asia-Pacific & Greater China Region Awards 2024

PATENT

IP High Court Awards USD 10 Million in Damages to Foreign Patent Holder for Infringer's Overseas Sales

Jay (Young-June) YANG, Duck Soon CHANG and Jiksoo KIM

On January 18, 2024, Kim & Chang, representing Novartis, the patent holder of a transdermal administration method for rivastigmine related to the "Excelon Patch" (an Alzheimer's disease treatment patch), obtained a favorable judgment from the Intellectual Property High Court (the "IP High Court"). The case centered on a Korean company accused of producing and exporting products that infringe upon Novartis's process patent. Ultimately, the IP High Court ordered the defendant to cease all infringing activities and pay KRW 12.1 billion (about USD 10 million) in damages.

The Patent Act provides provisions for calculating damages when a patent holder is unable to prove the actual amount of damages caused by an infringement. If the patent holder can prove the occurrence of infringement, the amount of damages can be presumed. Article 128 allows for the calculation of damages under Paragraph 2, based on the quantity of infringing products sold and the profit per unit the patent holder could have earned in the absence of the infringement, or under Paragraph 4, based on the profit gained by the infringer through the infringement.

This decision is significant in that it addresses: (i) whether the aforementioned provisions for calculating damages can still be applied even if the patent holder, located abroad, did not directly practice the patent-at-issue in Korea but instead sold the patented products through its wholly-owned subsidiary, and (ii) whether the infringer's profits from exporting products manufactured in Korea that infringe on the patent (i.e., profits from overseas sales revenue) can be recognized as the patent holder's damages.

1. Recognition of Damages Arising From Subsidiaries' Losses Due to the Patent Infringement

The IP High Court determined that the damage calculation provisions of the Patent Act (Article 128, Paragraphs 2, 4 and 5) aim to alleviate the burden of proof on patent holders. Relying on a Supreme Court precedent (Supreme Court Decision 2006*Da*1831, October 12, 2006), the court found that to claim damages based on the Patent Act, it is sufficient to show only a possibility or

likelihood of damages resulting from a competitive business relationship. In this case, the court concluded that there was evidence demonstrating the likelihood of damages to the plaintiff (Novartis) caused by the defendant's patent infringement. Factors considered include the following: (i) Novartis granted the right to practice the patent to its wholly-owned Korean subsidiary, which sold products utilizing the patented technology in Korea, (ii) the plaintiff's wholly-owned overseas subsidiaries also generated substantial profits from sales of the patented products, and the profits and losses of those subsidiaries directly affected the plaintiff's own profits and losses, and (iii) since the defendant's infringing products were clearly generic substitutes for the plaintiff's products, it appears that the defendant's domestic production and overseas export of the infringing products would have caused a decrease in the plaintiff's product sales at the plaintiff's overseas sales subsidiaries.

2. Recognition of Infringer's Profits from Overseas Sales Revenue as Damages

The IP High Court recognized that while patent rights are territorially limited to the registered territory, damages caused by infringement are not limited to the country of registration. Consequently, the IP High Court accepted the infringer's overseas sales revenue as "profits obtained from the infringement" and recognized it as damages to the patent holder. By deducting additional costs for the sales of infringing products from the sales revenue of the infringing products sold overseas, the court calculated the damages as the "contribution margin," thereby including the overseas sales revenue as part of the infringer's profits obtained from the infringement (Article 128, Paragraph 4 of the Patent Act).

However, in relation to the application of the provision (Article 128, Paragraph 2 of the Patent Act) that calculates damages by multiplying the "per-unit profit" of the patent holder by the quantity of infringing products transferred by the infringer, the IP High Court concluded that unless special circumstances prove that the damages caused by the decrease in the sales of the plaintiff's sales subsidiaries are identical to the damages suffered by the plaintiff, the per-unit profit of the sales subsidiaries cannot be used to calculate damages in this case.

This decision has significant implications for both foreign patent holders and companies at risk of patent infringement. It broadens the scope of damages from patent infringement and allows foreign patent holders to actively exercise their patent rights through licensing agreements with subsidiaries in Korea. Additionally, it highlights the potential inclusion of overseas sales revenue in the calculation of damages. However, it is important to note that this IP High Court decision is currently pending appeal and awaiting a final decision from the Supreme Court.

Korean Court Rejects Biosimilar Company's Defense to Patent Infringement Based on Research and Testing Exemption

By Duck Soon CHANG, Sang Young LEE and Kevin Kyumin LEE

On December 20, 2023, the Seoul Central District Court ruled in a preliminary injunction ("PI") action that a Korean company's activities conducted before the originator's compound patent expired under the claim of gaining product approval did not fall within the research and testing exemption allowed under the Korean Patent Act ("KPA").

Eylea®, a vascular endothelial growth factor inhibitor, is a blockbuster drug used to treat patients with neovascular age-related macular degeneration, and ranks within the top ten drugs in terms of worldwide revenue. The compound patent for Eylea® expired on January 9, 2024, and leading up to the expiry of this patent, a major Korean biosimilar company manufactured certain amounts of its biosimilar product in Korea and continuously exported it to the U.S. to conduct clinical studies and other testing to obtain regulatory approvals. The patentee filed a PI action for patent infringement against the biosimilar company, and in its defense, the biosimilar company claimed that its manufacturing and development of its Eylea® biosimilar was solely to obtain regulatory approval and that they did not infringe the patent citing Article 96 (1) of the KPA under the research and testing exemption.

The KPA provides the research and testing exemption (so called "Bolar exemption") similar to other jurisdictions. Under certain circumstances, this statute (Article 96) allows the practice of patented invention for research and testing to obtain product approval related to pharmaceutical patents. Despite the existence of this exemption, there have been only a handful of cases dealing with this issue in Korea to date, and even fewer relating to biopharmaceuticals. In interpreting Article 96, the court emphasized the importance of balancing the benefit to researchers in promoting the development of technology in reliance upon the said provision and the harm to the patentees that would result if the exemption was allowed. The court looked at two factors: 1) who had the burden of proof in showing whether the biosimilar activities constituted acts defined under Article 96, and 2) whether this determination was sufficiently supported by the facts and evidence.

After an unusual three (3) hearings, the PI court held that the burden of proof of whether the research exemption applies was on the biosimilar companies and the entities practicing the patent before patent expiry. Based on this determination, the court then concluded that the biosimilar

companies had not sufficiently proven that their manufacture and export activities during the patent term qualified for the research and testing exemption. Although evidence was submitted by the biosimilar companies to support their claim that they acted based solely on approval-related purposes, the court found for infringement due to the lack of clear evidence to support the biosmilar's argument when considering the overall manufactured and exported quantity, and the possibility that the product could be sold for commercial distribution later after research and testing was completed. Based on these grounds, the court ultimately issued an injunction prohibiting the biosimilar companies from engaging in infringing activities such as manufacturing until patent expiration. Further, the court ruled that the necessity of preservation was not denied just because the patent was soon to expire and that the necessity of preservation was clearly present based on the fact that the Korean company's activities may lead to significantly shortening the time period to enter the market, which could result in tremendous harm to the patentee. The court stated that in balancing the protection of patentees' rights, the research exemption should not go beyond and unduly limit the patentees' legitimate interests in light of the other purports of the KPA.

This decision is significant in that the court required a higher burden of proof for a potential infringer relying on the research and testing exemption and also required that sufficient and objective evidence must be produced in order to claim the exemption. It further clarified that stockpiling (which involves mass producing drug products before patent expiration with a view to selling them afterward) is not allowed and that imminent patent expiration does not minimize the necessity for preservation to protect the patentee's interest in this regard. This decision has become final and conclusive due to the expiration of the patent but a related suit, a main patent infringement action based on the same patent is pending before the same Seoul Central District Court panel, with a decision expected to be rendered in late 2024 or early 2025.

High Court Reaffirms Artificial Intelligence (AI) Cannot Be an Inventor in Korea

By Ho Yeon LEE and Raymis H. KIM

In recent years, patent applications filed around the world by naming an AI machine as an inventor have spurred substantial discussions on AI-related inventorship issues. Korea is no exception. As we reported in the previous issue of our newsletter (LINK), the Seoul Administrative Court (SAC) has clearly denied the qualification of AI as an inventor in June 2023 by affirming the refusal by the Korean Intellectual Property Office (KIPO) to accept a patent application with an AI identified as the sole inventor, on the basis that only a natural person can be an inventor.

On May 16, 2024, the Seoul High Court, reviewing the case on appeal from the SAC, rendered a ruling affirming the SAC's decision. In this article, we will look into AI inventorship issues and the gist of Seoul High Court's decision.

Background of the Case

The patent application at issue was originally filed under the Patent Cooperation Treaty (PCT) as an international application, and then entered the Korean national phase on May 17, 2021 (Korean Appl. No. 10-2020-7007394). The PCT application listed an AI machine called "Device for the Autonomous Bootstrapping of Unified Sentience (DABUS)" as the sole inventor. DABUS was made by American AI systems developer Dr. Stephen Thaler, who was named as the applicant.

Dr. Thaler has filed patent applications in many other jurisdictions, including the US, the UK, Australia, Japan, Germany, New Zealand, Taiwan, India, South Africa, Israel and Australia. All of the applications in these jurisdictions except South Africa have been rejected so far mainly on the basis that AI cannot be an inventor. South Africa appears to be the only country that has granted a patent to an AI inventor. However, South Africa does not have a substantive patent examination system, and thus it does not appear that the inventorship issue was substantively examined at the national phase stage.

Reasoning of the Seoul High Court Decision

The lower court (SAC), in rejecting the qualification of AI as an inventor, held that under the Korean Patent Act (KPA), only a natural person who creates an invention can be named as an inventor.

The SAC specifically relied on Article 33 of the KPA, which stipulates that "a person who creates an invention or his/her successor owns the right to obtain a patent on the invention."

During the appeal proceedings before the Seoul High Court, the applicant contested the above interpretation of the statutory language by the lower court. The applicant argued that the possibility of an AI creating inventions was likely not considered at the time of enacting the Patent Act and thus, the resulting legislative gap should be resolved through a rational legal interpretation. The applicant also contended that rights and obligations for inventions created by AI can be assigned to the owner or operator of the AI.

The Seoul High Court did not accept the applicant's arguments. Specifically, the High Court noted that accepting AI as an inventor under the current patent law provisions would go beyond the limits of legitimate legal interpretation, in light of the current level of development in AI technologies and society's perception of AI. The High Court further stated that if AI-generated inventions need protection in the future, it should be addressed through social discourse and legislative measures. This appears to leave open the possibility that the inventorship issue could be reconsidered with potential changes in relevant laws as AI technology advances in the future.

Additionally, the High Court unequivocally rejected the applicant's contention that the rights and obligations for the outcome created by AI can be assigned to the owner or operator of the AI, on the grounds that such an interpretation has no legal basis and is also completely inconsistent with the current patent law system.

For the other grounds of the lower court's ruling, the High Court expressed its agreement without providing specific details. For reference, the additional main grounds for the lower court's ruling are as follows:

- Under Article 2-1 of the KPA, an invention is defined as a "high level creation of a technical idea using the laws of nature." Such "technical idea" and "creation" are premised on human mental processes and mental activities, not on AI.
- To obtain a patent for an invention, an inventor must have legal capacity. Under Articles 3 and 34 of the Korean Civil Act, only a natural person or a corporation can be endowed with legal capacity. Since AI is neither a natural person nor a corporation, but rather may be viewed as a tangible thing in the form of software and hardware under the civil law, AI cannot be endowed with legal capacity.
- There is no sufficient rational basis to conclude that allowing AI to be an inventor would ultimately contribute to promotion of technological and industrial development in our society. Rather, it may pose a risk of atrophying human intelligence in the future, which in turn could adversely affect human innovation and research. Additionally, there is a risk that the patent system could become a means for protecting the rights and interests of only a small number of large companies that can monopolize powerful AI technologies.

The applicant has appealed the High Court decision to Korean Supreme Court on June 18, 2024.

KIPO Survey on AI Inventions

According to a press release by KIPO dated May 16, 2024, KIPO conducted an interesting public survey on AI inventions. This survey was carried out separately for AI experts and the general public (non-experts) from July 20, 2023 to September 30, 2023. About 1,500 individuals participated in the survey, including 292 experts and 1,204 non-experts. Some of the survey results are provided below.

First, the survey results revealed a gap in perception of the level of AI technologies between the experts and the general public. A large majority of the general public (70%) responded that the current AI technologies will be able to come up with solutions to technical problems on their own. In contrast, about 65.8% of the experts responded that AI is merely a tool. Also, the experts tend to believe that it is premature to recognize AI as an inventor or a rights holder of inventions. Specifically, about 60.8% of the experts opposed listing AI as an inventor, and about 75.6% opposed granting a patent to AI.

Additionally, significant portions of the experts and the general public held the views that if a patent were to be granted for an AI-generated invention, (a) the patent rights should be assigned to AI users (50.5% of experts and 44.0% of the general public), and (b) the patent term of AI inventions should be shorter than statutory duration specified in the KPA for human inventions (64.4% of experts and 75% of the general public).

KIPO plans to consider the survey results in leading the discussions on AI invention issues and coming up with appropriate and necessary legal standards and legislative changes.

Overall, the established legal principle under the patent law is that an inventor must be a natural person. However, it remains to be seen whether this legal principle will continue to hold. Future advancements in AI technology will likely prompt serious debates and discussions on procedural changes in favor of AI inventors.

KIPO's Efforts to Speed up Secondary Battery Patent Examination Intended to Increase Korea's Importance as a Patent Jurisdiction for Batteries

By Sung Eun KIM and Inchan Andrew KWON

Korea is a major player in the secondary battery industry, and over the years the Korean government has defined several secondary battery technologies as "national core technologies" subject to special requirements and policies that have been intended to enhance their development and to prevent their unauthorized leakage to parties outside of Korea.

However, statistics from the Korean Intellectual Property Office (KIPO) show that examination of patents in the secondary battery space also has slowed significantly in recent years, presumably due a significant increase in secondary battery patent filings. Examination times to first office action increased from an average of about 12.4 months in 2018 to about 22.4 months in 2022, while over the same period, the number of patent applications more than doubled from 3,520 to 7,240.

To address this issue, KIPO has announced a plan to significantly shorten patent examination periods for secondary battery patents, in part by modifying the expedited examination procedure, and by establishing a dedicated examination department for secondary batteries. In view of the fact that Korea is expected to grant patents on secondary battery inventions at a much more accelerated rate going forward, and due to its importance in the secondary battery industry, Korea is expected to become a focus of patent filings by many international battery companies, which may have implications for players in the secondary battery industry both in Korea and in foreign countries.

1. Expedited examination for battery patents

Beginning Feb. 19, 2024, certain patent applications covering secondary battery technology were added as "advanced technology" under the category of "patent applications for advanced technology important for the national economy and national competitiveness," qualifying them for expedited examination. Such applications must meet the following conditions in order for their examination to be expedited:

A. The patent application must be directly related to secondary battery materials, parts, equipment, manufacturing, or design technologies; and
B. The patent application must be filed by a company engaged in the production or preparation of products or devices related to secondary batteries in Korea, the result of national research and development projects related to display technology, or filed by a specialized secondary battery university (graduate school), according to the Act on Special Measures for Strengthening the Competitiveness of and Protection of National High-tech Strategic Industries.

2. Establishment of dedicated examination department for battery patents

KIPO established a consolidated examination department dedicated to secondary battery applications in June 2024. By this reorganization, all 45 examiners handling secondary battery patent applications, who are currently scattered across various examination bureaus, will be gathered in one department. KIPO also has hired 38 additional highly experienced private sector personnel with technical expertise and field experience in the secondary battery field as patent examiners, and assigned them to the secondary battery examination department, which comprises 3 specialized groups:

Secondary battery material examination group	Secondary battery design examination group	Secondary battery control management examination group
Materials such as cathodes, anodes, electrolytes, etc.	Structure, design or manufacturing process of electrode, packaging technology, etc.	Circuit systems, battery management systems, recycling, etc.

3. New Mechanism for Corrective Orders by KIPO to Improve Operational Processes

KIPO's plan for handling secondary battery applications is based on similar steps taken by KIPO about 1 year ago to facilitate examination of semiconductor applications, which produced some remarkable results. According to KIPO's report in May, after the launch of the dedicated semiconductor examination department in April 2023, the average examination time to first office action for semiconductor patents was shortened to 1.9 months, much shorter than the overall average examination time of 16 months. While the dedicated semiconductor examination department was originally launched with 130 examiners, 67 experienced private sector experts were additionally hired to improve examination quality and to reduce examiner workload, resulting in much speedier examination.

If the above outcomes can be replicated for secondary battery applications, Korea would potentially become one of the world's fastest jurisdictions for obtaining allowance of secondary battery patents, perhaps with patents registered within a few months after filing. As a result, it may become difficult to monitor competitors' patent filing activity in Korea or to take steps to delay competitors' patents from being granted through third-party observations and the like, since patents may be granted in Korea well before they become published. This may have knock-on effects in other jurisdictions as well, if the Patent Prosecution Highway is used to expedite patent applications in other countries based on such early Korean patent grants. It is also likely that Chinese battery companies will increasingly file in Korea, both to benefit from KIPO's speed of examination, and as a consequence of establishing battery manufacturing operations in Korea for the purpose of seeking to avoid the restrictions of the U.S. IRA.

Any secondary battery companies with a business entity in Korea are therefore strongly advised to take advantage themselves of KIPO's accelerated examination procedures for filing IP, or at least to carefully monitor and account for patents being granted in this space in Korea, in order to better protect their businesses in Korea.

Revised Sentencing Guidelines Strengthen Penalties for Trade Secret Misappropriation and Industrial Technology Infringement Crimes

By Raymis H. KIM, Seok-Hee LEE and Seung-Chan EOM

On March 25, 2024, the Sentencing Commission of the Supreme Court (hereinafter, the "Sentencing Commission") approved revised sentencing guidelines for intellectual property and technology infringement offenses. The revised guidelines add "Infringement of Industrial Technology" as a new category of intellectual property crime, amend the title of the sentencing guidelines to "Sentencing Guidelines for Intellectual Property and Technology Infringement Crimes" (hereinafter, the "Sentencing Guidelines"), increase prison terms, and strengthen the standards for suspended sentences for trade secret misappropriation and technology infringement crimes. The Sentencing Guidelines apply to cases prosecuted on or after July 1, 2024.

1. Increase in recommended sentencing range for trade secret misappropriation crimes

The amendments to the Act on Prevention of Unfair Competition and Protection of Trade Secrets (the "Unfair Competition Act"), which increased criminal penalties for trade secret misappropriation, were promulgated on February 20, 2024, and are expected to take effect on August 21, 2024. In response to the amendments, the Sentencing Commission has revised its guidelines to increase the sentencing range for trade secret misappropriation crimes. The announced revisions to the Sentencing Guidelines are expected to have a significant impact on the actual level of punishment for trade secret misappropriation crimes.

Category		Mitigated Sentence Range	Standard Sentence Range	Aggravated Sentence Range
Misappropriation within Korea	**Previous**	Up to 10 mos.	8 mos. to 2 yrs.	1 to 4 yrs.
	Revised	**6 mos. to 1 yr. 6 mos.**	**10 mos. to 3 yrs.**	**2 to 5 yrs.**
Misappropriation outside Korea	**Previous**	10 mos. to 1 yr. 6 mos.	1 yr. to 3 yrs. 6 mos.	2 to 6 yrs.
	Revised	**10 mos. to 3 yrs.**	**1 yr. 6 mos. to 5 yrs.**	**3 to 8 yrs.**

2. Strengthened sentencing range for infringement of industrial technology and national core technology

Unlike the previous guidelines which did not provide separate sentencing standards for infringement of "industrial technology" or "national core technology," the new Sentencing Guidelines establish strengthened sentence recommendations for violations of the Act on Prevention and Protection of Leakage of Industrial Technology, the Defense Industrial Technology Protection Act, and the Act on Special Measures to Strengthen and Protect Competitiveness of National High-Tech Strategic Industries. For example, the Sentencing Guidelines recommend a maximum prison term of up to 18 years[1] for overseas infringement of national core technology. As for overseas infringement of industrial technology, for which the previous sentencing guidelines for trade secret misappropriation acts were applied to provide a recommended prison term of up to 9 years, the Sentencing Guidelines recommend a prison term of up to 15 years.[2] It is worth noting that the recommended sentences are significantly higher than past cases of actual sentences imposed or the statutory sentences for similar categories of offenses. The strengthened sentences reflect a policy of increased punishment for overseas infringement that jeopardizes the viability of domestic companies and harms national economic security.

Category	Mitigated Sentence Range	Standard Sentence Range	Aggravated Sentence Range
Misappropriation of Trade Secrets in the Course of Employment	Up to 8 mos.	6 mos. to 1 yr. 6 mos.	1 yr. to 3 yrs. 6 mos.
Infringement within Korea	8 mos. to 2 yrs.	1 to 4 yrs.	2 yrs. 6 mos. to 6 yrs.
Overseas Infringement of Industrial Technology	**1 yr. to 3 yrs. 6 mos.**	**2 to 6 yrs.**	**4 to 10 yrs.**
Overseas Infringement of National Core Technology	**2 to 5 yrs.**	**3 to 7 yrs.**	**5 to 12 yrs.**

1 At the time of sentencing, the judge has discretion to add or subtract by one-half the number of the recommended years at both ends of the sentence range. Thus, given that the recommended sentence range for the overseas infringement of national core technology is 4 to 10 years., in practice, a judge may sentence anywhere between 2.5 to 18 years.

2 For the same reason as above, the actual range that a judge may sentence for the overseas infringement of industrial technology is 2 to 15 years.

3. Strengthened Standards for Suspension of Sentence

The new Sentencing Guidelines eliminate a lack of a criminal conviction as a major mitigating factor in determining whether to grant a suspended sentence for trade secret misappropriation or technology infringement crimes. In addition, the infringement of "industrial technology" (as opposed to general technology infringement) is now prescribed as a major aggravating factor. The strengthened standards are expected to have a strong deterrent effect, as the new standards significantly increase the likelihood that even first-time offenders will be subject to prison terms. However, for crimes committed with gross negligence, the Sentencing Guidelines allow prison terms to be reduced or suspended in consideration of the difficulty in recognizing infringement of intellectual property crimes.

Upon taking effect, the Sentencing Guidelines are expected to significantly increase criminal sentences for trade secret misappropriation and industrial technology infringement offenses. The Sentencing Commission's revisions are expected to sound an alarm on technology infringement crimes and have a positive impact on protecting the substantive rights of rights holders. While the Sentencing Guidelines are expected to deter infringement more effectively, it is also expected that companies and individuals suspected of being a violator will face a far greater risk of criminal sanctions.

Further, in light of the Korean government's recent establishment of the Technology Leakage Task Force to swiftly and proactively respond to illicit overseas outflow of technology and human resources, companies are advised to review their internal compliance systems, especially companies that own national core technology or industrial technology or conduct business involving such technologies.

We will continue to keep you posted on intellectual property amendments and government trends that may be of interest to your company.

Amendment to Notification Regarding Designation of National Core Technologies

Min Seo HWANG, John J. KIM, Peter K. PAIK, Ki Beom PARK and Nam KIM

On March 14, 2024, the Ministry of Trade, Industry and Energy (the "MOTIE") issued proposed amendments to the "Notification Regarding Designation of National Core Technologies" (MOTIE Notice 2024-241, the "Amendments"). The Amendments went into effect on July 5, 2024, after the collection of public comments closed on April 4, 2024. Under the Amendments, (i) four technologies in three fields (i.e., nuclear power, machinery and automobile/railway) were newly designated as national core technologies, (ii) three technologies in the field of nuclear power were removed, and (iii) modifications were made to 24 technologies in eight fields to reflect the current technological status.

Under the Act on Prevention of Divulgence and Protection of Industrial Technology (the "Industrial Technology Act" or "ITA"), companies that hold national core technologies ("NCTs") are required to implement protective measures, including establishing secured areas and obtaining approval from or reporting to the Minister of the MOTIE before exporting NCTs. Additionally, foreigners seeking to acquire or merge with enterprises that hold NCTs must seek approval from or report to the Minister of the MOTIE.

The Amendments expand the previous list of 75 technologies in 13 fields to 76 technologies in 13 fields. A more detailed review of the newly designated, removed or modified NCTs is as follows.

1. New Designations (Proposed): Four Technologies

Four additional technologies in three fields (i.e., two in nuclear power, one in machinery and one in automobile/railway) have been newly added to the NCT list due to their technological advantage and high growth potential.

Field	NCT Name
Nuclear Power (2)	• Rubber-based seismic isolation device technology for reducing excessive seismic forces in nuclear power plant structure design • Technology to improve resistance of TRISO-SiC nuclear fuel to high pressure sintering and high temperature oxidation
Machinery (1)	• Hydrogen turbine design, fabrication, and testing technologies for power generation
Automobile/Railway (1)	• Design, analysis, and manufacturing of high-speed rail vehicle bodies

2. Removed: Three Technologies

Three nuclear technologies have been removed from the NCT list because they have become widely known or generally available in the industry.

Field	NCT Name
Nuclear Power (3)	• Nuclear power plant passive auxiliary water system technology • Remote visual inspection technology for the secondary steam generator of nuclear power plants • New light-water reactor power control system technology

3. Modifications: 24 Technologies

To better define the scope of protected technologies, the technology names have been clarified/revised or the related criteria have been enhanced for 24 technologies in eight fields, including the semiconductor, electrical and electronic, automobile and railway, steel, shipbuilding, space, machinery, and robotics fields.

Field	Prior NCT Name	Revised NCT Name
Semiconductor (1)	• Design, process, and device technologies which correspond to 30 nm or less, or stacked 3D NAND flash	• Design, process, and device technologies which correspond to **64 layers or more** of stacked 3D NAND Flash
Electrical and Electronics (2)	• Design, manufacturing, and process technologies of cathode materials with more than 80% Ni content for lithium secondary batteries	• Design, manufacturing, and process technologies of cathode materials (**including precursors**) with more than 80% Ni content for lithium secondary batteries
	• Design, process, manufacturing, and evaluation technologies for ultra-high performance electrodes of 600 mAh/g or more, or solid electrolyte based lithium secondary batteries	• Design, process, manufacturing and evaluation technologies **for next-generation lithium secondary batteries (including ultra-high performance electrodes of 600 mAh/g or more)**
Automobile/ Railway (3)	• Design and manufacturing technologies for diesel engine fuel injection apparatus, super charger system, and exhaust gas post-treatment apparatus of EURO 6 emission standards or higher (limited to DPF, SCR)	• Design and manufacturing technologies for diesel engine fuel injection **systems**, super charger system, and exhaust gas post-treatment **systems**, of EURO 6 emission standards or higher

Field	Prior NCT Name	Revised NCT Name
	• Design and manufacturing technologies for power system of high-speed train with speed of 350 km/h or higher (limited to AC induction motor, TDCS control and diagnosis, and main power converting device technology)	• **Design and manufacturing technologies for high-speed rail vehicle power system and control diagnostics (limited to traction motor, main power inverter, bogie, and vehicle control system technology)**
	• Design and manufacturing technologies for core components and systems for autonomous vehicles (limited to camera systems, radar systems, lidar systems, and high-precision positioning systems)	• Design and manufacturing technologies for core parts and systems of autonomous vehicles (but limited to camera systems, radar systems, lidar systems, and precision positioning systems **within three years of commercialization**)
Steel (3)	• Manufacturing technology of iron bar/section steel with yield strength of 600 MPa or higher (limited to products manufactured by electrical furnace with low-carbon steel (0.4% C or less))	• Manufacturing technology of iron bar/section steel with yield strength of **700 MPa** or higher and **tensile strength of 650 MPa or higher** (limited to products manufactured by the electrical furnace method with low carbon steel (0.4% C or less))
	• Manufacturing technology for TWIP steel containing manganese for high-processing (more than 10% manganese)	• Manufacturing technology for **alloy steel** containing manganese for high-processing (more than 10% manganese)
	• AI-based ultra-precise plating control technology (0.1 μm resolution level)	• Ultra-precision plating (0.1 μm resolution level) **equipment and design and control technology**
Shipbuilding (5)	• Design technology for high-value-added ships (super-large capacity container ships, low temperature liquid tank ships, large capacity cruise ships, anti-freezing freight ships, gas fuel propulsion ships, electric propulsion ships, etc.) and ocean systems (maritime structure, maritime plant, etc.)	• Design technology for high-value-added vessels (super-large capacity container ships, low temperature liquid tank ships, anti-freezing freight ships, **eco-friendly fuel-powered** ships, electric propulsion ships, and ocean systems (**marine platform vessels**, maritime structure, maritime plant, etc.)
	• Design and manufacturing technologies for liquefied gas cargo tank and fuel tank	• Design and manufacturing technologies for liquefied gas cargo tank and fuel tank **(design, manufacture, maintenance, and repair of barriers, insulation systems and pump towers**)
	• Block mounting and on-land ship/maritime structure building technology for 3,000 tons or more ship/maritime structure	• Block mounting and on-land ship/maritime structure building technology for 3,000 tons or more ship/maritime structure **(degree management, safety control, and connection control technology)**

Field	Prior NCT Name	Revised NCT Name
	• Technology for autonomous navigation (economical navigation, safe navigation, etc.), automated navigation, and integrated control system for ships	• Technology for autonomous navigation **(situational awareness, intelligent navigation, digital bridge and integrated platform, onboard and off board communication and security, etc.)** and integrated control system for ships
	• Manufacturing technology for fuel supply devices of ships with gas fuel propulsion, for re-liquefaction and re-gasification devices, etc.	• **Design, processing** and manufacturing technologies for **transport of green (low or zero-carbon)** fuel and for fuel supply devices of ships with gas fuel propulsion, **cargo operation systems**, re-liquefaction and re-gasification devices, etc.
Space (2)	• Design technology for high speed activation precision attitude control system of ultra-high resolution (50 cm level at 500 km altitude) optical satellite	• Design technology for high speed activation precision attitude control system of ultra-high resolution (**50 cm or lower level** at 500 km altitude) optical satellite and **determination technology)**
	• Assembly, alignment, and inspection technologies for satellite electro-optical cameras with an internal diameter of 1 m or greater	• **Production and assembly** technologies for satellite electro-optical cameras with an internal diameter of 1 m or greater
Machine (5)	• Reliability design and manufacturing technologies for medium and heavy excavators	• Reliability design and manufacturing technologies for **20-ton class and above** medium and heavy excavators
	• Design technology for off-road diesel engine and post-processing system of Tier 4F emission standards	• Design technology for off-road **industrial** diesel engine and post-processing system of Tier 4F **Stage-V** emission standards
	• Design and manufacturing technologies for load-sensing hydraulic type transmission for tractors	• Design and manufacturing technologies for load-sensing **automatic** transmission for tractors
	• Technology of high-efficiency turbo compressor working with low global warming potential ("GWP") refrigerants	• Technology for **oil-free turbo compressor based industrial high temperature heat pumps** working with low global warming potential ("GWP") refrigerants
	• Design and operation technologies for human-friendly elevator system with low vibration, reduced noise, and dynamic stability	• **Human-friendly ultra-high speed** elevator design and operation technology
Robot (3)	• Design and manufacturing technologies for laparoscope, endoscope, and image guided surgical robot system	• Design, manufacturing, and **control** technologies for laparoscope, endoscope, and image guided surgical robot system

Field	Prior NCT Name	Revised NCT Name
	• Operation and control technologies of robots for high-density procedure operation where work spaces are shared	• **Software** technologies for **operation of multi-manufacturing robots** where work spaces are shared
	• Robot integrated control technology based on video surveillance	• **Integrated control technology for multi-mobile robots** based on video surveillance

The Amendments to the Notification Regarding Designation of National Core Technologies added new NCTs and modified their specifications. We recommend companies to review whether they hold NCTs under the revised rules and the scope of any NCTs they may hold. If companies do hold NCTs, it is crucial to ensure that adequate protective measures are in place and that NCTs are not inadvertently exported without the necessary regulatory approval or reporting.

Enforcement of Recent Amendment to Public Notice on Trade of Strategic Items and Announcement of Draft Upcoming Partial Amendment to Public Notice on Trade of Strategic Items

By Min Seo HWANG, Raymis H. KIM, Se-Hee LEE and Hyeongsu PARK

The partial amendment to the Public Notice on Trade of Strategic Items ("Public Notice"), announced by the Ministry of Trade, Industry and Energy ("MOTIE") on May 3, 2024, came into effect on June 21, 2024 (the "Amended Notice"). Subsequently on June 28, 2024, the MOTIE also announced a draft partial amendment to the Public Notice, newly adding 243 items to the items subject to the catch-all license requirement for export to Russia or Belarus (the "Draft Partial Amendment").

An overview of the Draft Partial Amendment and the Amended Notice is as follows:

1. Overview of Draft Partial Amendment

Certain items subject to the U.S. catch-all controls but not previously covered in the Public Notice have been added to the list of **items subject to the catch-all license requirement** for export to Russia or Belarus, as provided in Annex 2-2 of the Draft Partial Amendment. Specifically, **a total of 243 items** have been added across materials and chemicals categories based on HS codes (Nos. 1,160 to 1,402).

Annex 24 of the Draft Partial Amendment provides that an application for a catch-all export license for any of these items **may be subject to an exceptional case-by-case review for catch-all license**, provided that a relevant trade agreement has been executed before the enforcement date of the Draft Partial Amendment. According to the MOTIE press release, the Draft Partial Amendment is expected to come into force in late August following regulatory review and other related procedures. We will promptly issue a follow-up newsletter once the exact enforcement date is confirmed.

The following table lists the newly added items subject to a catch-all export license, along with examples based on HS codes.

No.	HS Code Description	Examples
1160 ~ 1177	Chapter 25 Salt; sulphur; earths and stone; plastering materials, lime, and cement	Clays, chalk, gypsum, lime, and mica
1178 ~ 1191	Chapter 32 Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments, and other colouring matter; paints and varnishes; putty and other mastics; inks	Tanning substances, colouring matter, pigments, and glazes
1192	Chapter 35 Albuminoidal substances; modified starches; glues; enzymes	Dextrin and starches
1193 ~ 1210	Chapter 37 Photographic or cinematographic goods	Photographic/cinematographic film and papers
1211 ~ 1228	Chapter 38 Miscellaneous chemical products	Rosin, wood tar, agents/dye carriers for textile, plasticisers, preparations for fire-extinguishers, anti-freezing fluids, biodiesel, reaction initiators, reaction accelerators, and catalytic preparations
1229 ~ 1258	Chapter 39 Plastics and articles thereof	Polypropylene (PP), polystyrene (PS), polyvinyl acetate (PVA), Poly(methyl methacrylate) (PMMA), polylactic acid (PLA), polyamide (PA), and other plastic materials; Pipes, hoses, plates, sheets, bidets, doors, window frames, and other plastic products
1259 ~ 1293	Chapter 40 Rubber and articles thereof	Butadiene, isobutene, latex and other rubber materials; Plates, sheets, strip, belts, tubes, hoses, pneumatic tyers (retreaded or used), and other rubber products
1294	Chapter 58 Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	Gauze
1295 ~ 1297	Chapter 64 Footwear	Ski/snowboard boots and rubber/plastic footwear
1298	Category 65 Headwear	Safety helmets
1299 ~ 1303	Category 69 Ceramic products	Bricks, tiles, roofing tiles, and chimney liners
1304 ~ 1319	Category 70 Glass and glassware	Glass rods, glass balls, glass tubes, glass sheets, and laminated safety glass
1320	Chapter 71 Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	Unwrought silver
1321	Chapter 72 Iron and steel	Ferrovanadium
1322 ~ 1327	Chapter 74 Copper and articles thereof	Copper bars and rods, copper wire and copper plates, sheets, strips, etc.
1328	Chapter 78 Nickel and articles thereof	Nickel powders and flakes

No.	HS Code Description	Examples
1329	Chapter 80 Tin and articles thereof	Tin alloy
1330 ~ 1334	Chapter 82 Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	Saw blades and cutting blades
1335	Chapter 83 Miscellaneous articles of base metal	Flexible tubing
1336 ~ 1381	Chapter 84 Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	Boilers, pumps, machine-tools, welding machinery and apparatus, and fluid projectors for semiconductor manufacturing
1382 ~ 1390	Chapter 85 Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	Magnets, lamps, electric heating resistors, automobile radios, circuit breakers, and display tubes
1391	Chapter 86 Railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling equipment of all kinds	Diesel electric locomotives
1392 ~ 1394	Chapter 87 Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	Fire fighting vehicles / concrete mixer trucks
1395 ~ 1402	Chapter 90 Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	Lenses, cinematographic cameras, machines and appliances for testing material property, and hydrometers

2. Overview of the Amended Notice

Annex 24 of the Amended Notice has newly included "(11) publications, cinematograph films, music CDs, tapes, etc." as a category of "trade of consumer telecommunications products" **exempted from the catch-all export license requirement**. Additionally, through *mutatis mutandis* application of Article 26 "Exemption of Individual Export License," Paragraph (1), Subparagraphs 7 and 15, **the grounds for exemption from the catch-all license requirement** now include: (1) re-importing and repairing export items due to their failure or breakdown and then re-exporting them; and (2) exporting containers for the purpose of transporting other items and then, within one year thereof, re-importing or destroying them at the overseas site (both of which were originally grounds for exemption from the individual export license requirement). If you intend to export any items to Russia or Belarus, it would be worthwhile to examine whether such items qualify for the new exemption from the catch-all license requirement.

Appendix 24 – Guidelines on License for Export to Russia or Belarus for Cooperation with International Export Controls

2. (*Omitted*)

Notwithstanding the foregoing, the (catch-all, brokerage or transit/transshipment) license requirement shall be exempted in the event of Subparagraphs A and B below. Among the individual export license exemption clauses, Article 26(1), Subparagraphs 2, 3, 6, **7**, 9, **15**, 16, and 17 and Article 26(2)5 shall apply *mutatis mutandis* to the exemption of (catch-all, brokerage or transit/transshipment) license requirement (*Omitted*).

A. Support for the government or international organizations

B. Trade of consumer communications products

(1) ~ (10) (*Omitted*)

(11) Publications, films, posters, music records, and photographs, as well as microfilms, tapes and compact discs (CDs) containing these materials, which do not incorporate any software or technology listed in Appendix 2 or Appendix 2-2

Further, the Amended Notice reflects the changes in the strategic items subject to export controls, as agreed upon by the member states of the international export control regimes, such as WA, NSG, MTCR, and AG. As a result, three (3) items below have been newly added as **dual-use items**. Amendments to Annexes 1 through 4 resulting from these additions will come into force three (3) months after the enforcement of the Amended Notice on June 21, 2024, *i.e.*, September 21, 2024.

- (Compound) 1C011.e Iodine pentafluoride (CAS 7783-66-6)
- (Chemical substance) 1C350.90 Dipropylamine (CAS 142-84-7)
- (Pathogens and toxins harmful to humans and animals) 1C351.d.24 Neosaxitoxin

As discussed above, the Amended Notice has newly added items eligible for catch-all license exemptions and grounds therefor, while the Draft Partial Amendment has added a significant number of items subject to the catch-all license requirement. Given the frequent changes to the Public Notice, driven by global demands for cooperation with export controls as well as the geopolitical situations surrounding Korea, companies engaged in relevant businesses are advised to thoroughly verify the HS codes of their export items and regularly check for updates to the Public Notice. Extra caution is recommended when determining whether export items fall under strategic items and/or items subject to catch-all license. Companies should also double-check the risk of items entering Russia, Belarus or other countries of concern through a third country.

Submission of Consent Letters: Guidelines

By Sue Su-Yeon CHUN and Alexandra BÉLEC

South Korea's long awaited "letter of consent system" was introduced on May 1, 2024, and the related amendments to the Korean Enforcement Regulations of the Trademark Act ("Regulations") went into effect on the same day.

The following points should be kept in mind to ensure that a consent letter is accepted.

When consent letters can be submitted

A consent letter may be submitted at the time of filing an application or when a rejection based on similarity to a senior application/registration is actually received. The Regulations specify the time periods during which a consent letter may be submitted, and they are as follows:

- If the application has not yet been published: from the application filing date until the date of publication or the date of KIPO's final rejection
- If the application has already been published: by the response deadline to an opposition or the response deadline to KIPO's office action
- When requesting a re-examination: by the deadline to request the re-examination (i.e. within 3 months of the date the notice of the final rejection was received)
- If an appeal is filed with the IPTAB against KIPO's final rejection: from the date the appeal is filed until the IPTAB closes its examination of the appeal.

Required information

According to the Regulations, the below information must be included in the consent letter to be accepted:

1. Application and/or registration number(s) of the senior mark(s);
2. Application number of the applied-for mark (or information based on which the applied-for mark can be identified);
3. The designated goods/services of the applied-for mark for which the consent is granted;

4. A statement confirming that the parties acknowledge that the respective trademark registers of the senior mark and the applied-for mark will reflect that the applicant's applied-for mark was registered with the consent of the owner of the senior mark;
5. The name and signature of the owner of the senior mark(s); and
6. The name and signature of the applicant.

Unacceptable consent letters

The Regulations also stipulate that the below types of consents will not be accepted:

- Conditional consents (e.g. where the geographic region/period/effectiveness of the trademark rights, etc. are limited);
- Comprehensive consents (e.g. where consent is given to the coexistence of any and all future applied-for marks, etc.); and
- Consents to the registration of an identical mark in respect of the same goods/services as the senior mark.

Although the Regulations provide detailed guidelines, Kim & Chang will be monitoring how they are applied in practice and whether they are refined over time.

Copyright in the Age of Artificial Intelligence

By Sun Ah JEONG and Jieun NAM

On January 16, 2024, the Ministry of Culture, Sports and Tourism ("MCST") and the Korea Copyright Commission ("KCC") released Guidelines on Generative AI and Copyright (the "Guidelines").

While not legally binding, the Guidelines provide helpful policy directions for various stakeholders including AI service providers, copyright holders, and AI service users. The Guidelines address potential copyright issues in training AI models and generating outputs from the models, considerations for copyright holders and AI service users, and whether AI-created content can be registered for copyright.

Key Highlights of the Guidelines

Topics	Details
Guidelines for AI service providers	AI service providers are encouraged to do the following: • Secure legal basis for using any copyrighted works prior to using them given the current lack of clear legal standards on whether using copyrighted works for training AI models constitutes "fair use" under copyright law. • Prevent copyright infringement by filtering out any expression that is identical or similar to copyrighted works from AI-generated outputs. • Allocate liabilities among foundation model developers and downstream AI service providers who deploy such models in relevant contracts to help resolve future disputes that may arise from copyright infringement by AI-generated content. • Invest in technologies and research to label AI-generated content with an ultimate goal to protect copyright holders' rights while also facilitating seamless use of copyrighted work.
Guidelines for copyright holders	• Any copyright holders that do not want their copyrighted works to be used to train AI models are advised to clearly indicate such intent in relevant contracts or adopt technical measures to preclude such use by adding robot exclusion standards.
Guidelines for AI service users	• AI service users are advised to take caution when entering prompts into AI services, to avoid infringing a copyright by entering such prompts or inducing the AI service to generate any infringing content.

Whether AI-generated content can be registered for copyright	• Content that was created using AI and without human intervention cannot be registered for copyright. • To the extent that the AI-created content was modified or augmented by human beings in a creative way such that the human-modified portion is a protected expression under copyright law, such human-modified portion of the content can be registered for copyright.

On February 19, 2024, the MCST kicked off the "2024 AI-Copyright Task Force" to develop policy plans to address issues that industry stakeholders are facing in practice, such as: (i) how to secure legal basis to use copyrighted works in training AI models; (ii) whether to disclose training datasets; (iii) whether and to what extent AI-generated outputs can be protected; (iv) how to label AI-generated content; (v) conditions for registering AI-generated content for copyright and copyrightable scope; and (vi) standards for reviewing potential copyright infringement by AI-generated content. Companies are advised to closely monitor the Task Force as it is expected to announce more specific policy directions later this year.

KIPO's Monetary Incentives for Reporting Online Sellers of Counterfeits

By Seok Hyun KWON and Clare Ryeojin PARK

On April 8, 2024, the Korea Intellectual Property Office (KIPO) started offering rewards for reporting sellers who offer counterfeit products on two or more online platforms. If the links to the suspect products are actually taken down following KIPO's review of the matter, the person who filed the report will receive KRW 50,000 (approx. USD 36), subject to a per person maximum of KRW 250,000 (approx. USD 180) per year.

Reports should be filed online through KIPO's *One-Stop Reporting Center for IP Infringements* portal (www.ippolice.go.kr) and evidence (such as screenshots) showing that the seller is offering the counterfeit products on two or more platforms must be attached.

Previously, KIPO rewarded reports of counterfeits only if a case was transferred to the Prosecutor's Office with an indictment opinion and the illegal profits earned by the seller exceeded a certain amount. As counterfeits are proliferating online, KIPO hopes to increase public awareness and incentivise more consumers to actively take part in the country's efforts to curb counterfeiting with this new reward system.

NEWS

Former Chief Presiding Administrative Judge of the IPTAB Joins Kim & Chang

We are pleased to announce the addition of Ms. Sun Young Yoon, a Korean patent attorney, to Kim & Chang's IP Practice.

Ms. Yoon is a highly respected expert in intellectual property law with a wealth of over 20 years of experience spanning various fields including chemistry, chemical engineering, pharmaceuticals, and biotechnology. Her notable career path encompasses international law firms, corporate leadership, academia, and public sectors. Prior to joining Kim & Chang, she served as a Chief Presiding Administrative Judge at the Korean Intellectual Property Trial and Appeal Board (IPTAB) within the Korean Intellectual Property Office (KIPO).

With her distinguished experience and expertise, she brings valuable insights to the firm's practice, especially in strategic IP management consulting, IP transactions, and IP administrative actions and disputes across diverse technical areas and industries.

For more details, please refer to her profile page (LINK).

Kim & Chang Named in IAM Patent 1000: The World's Leading Patent Professionals 2024

Kim & Chang has been ranked in the Gold (highest) band for litigation and prosecution, and also ranked as Highly Recommended for transactions in Korea in the thirteenth edition of the Intellectual Asset Management (IAM) Patent 1000: The World's Leading Patent Professionals.

In addition, 21 Kim & Chang professionals – Stephen T. Bang, Duck-Soon Chang, In Hwan Kim, Jay J. Kim, Young Kim, Inchan Andrew Kwon, Minho Lee, Si Yul Lee, Monica Hyon Kyong Leeu, Amy Seung Hyun Oh, Seong-Soo Park, Yu-Seog Won, Chun Y. Yang and Jay (Young-June) Yang for litigation, Yongrok Choi, Sang Young Lee, Sean (Seunghun) Lee, Song Mi Lim, and Man-Gi Paik for prosecution, Chul Hwan Jung and Marcus (Yoonchang) Lee for transactions – have been identified as recommended individuals in Korea.

The IAM Patent 1000 is a guide to top patent practitioners in key jurisdictions around the globe.

Their rankings are based on in-depth research and interviews with numerous attorneys at law, patent attorneys and in-house counsel.

Named "South Korea National Law Firm of the Year" – Chambers Asia-Pacific & Greater China Region Awards 2024

Kim & Chang was recognized as the "South Korea National Law Firm of the Year" at the *Chambers Asia-Pacific & Greater China Region Awards 2024*. Since the first awards ceremony in 2010, our firm has been honored with this title nine times, earning widespread recognition as one of Korea's leading law firms.

About Chambers Asia-Pacific & Greater China Region Awards: Hosted by the world-renowned legal media Chambers and Partners, the awards ceremony recognizes the past year's work performance, strategic growth, and customer service excellence of law firms in the Asia-Pacific region and selects the best law firm in each country. This year's results were announced at the awards ceremony held in Hong Kong on May 29, 2024.

Newsletter

A Quarterly Update of Korean IP Law & Policy

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