

# Research on the Non-Publication System for Patent Applications in Japan

Meili Han

School of Law of Beijing Institute of Technology, Beijing 100081, China

---

**Abstract:** This paper presents a systematic analysis of Japan's non-publication system for patent applications, examining its institutional foundations and operational mechanisms with particular emphasis on key structural features and their practical outcomes. Specifically, the study focuses on critical measures such as the two-stage examination process for confidential patents, the establishment of specified technology domain lists, and the implementation of loss compensation mechanisms. The findings indicate that Japan's system demonstrates a stronger emphasis on safeguarding applicants' rights, characterized by relatively shorter confidentiality periods and more flexible declassification procedures. Moreover, the system exhibits several distinctive institutional features, including the formulation of technology domain lists, the integration of expert participation in review procedures, and the adoption of equitable compensation frameworks for rights holders. These institutional practices offer meaningful insights for enhancing China's patent confidentiality system, potentially enabling a balanced approach that supports national security objectives while fostering technological innovation.

**Keywords:** Japanese patent system; non-publication system; confidential patents; patent examination.

---

## 1. Overview of the Non-Publication System for Patent Applications

On May 11, 2022, Japan enacted the Act on the Promotion of Economic Security (hereinafter referred to as the "Promotion Act"), which introduced the "non-publication system for patent applications." [1] In April 2023, the basic policy for this system was announced, clarifying its fundamental concepts. In August, a government ordinance specified the applicable technological fields. By December, the Cabinet Office and the Ministry of Economy, Trade, and Industry (METI) issued Order No. 5 under the Promotion Act, detailing the necessary procedures between the Japan Patent Office (JPO) and patent applicants. The order took effect on May 1, 2024.

The non-publication system for patent applications refers to a procedure where, if a specific invention described in a patent application's specification, claims, or drawings could seriously harm national and public security upon disclosure, it undergoes a "confidentiality designation" process. This process suspends the publication of the application, patent grant decisions, and rejection rulings while imposing restrictions on the implementation and disclosure of the invention to prevent information leaks. Notably, if an invention is developed in Japan and falls within a designated technological field, it must first undergo a confidentiality review when filed in Japan.

In essence, Japan's non-publication system aims to ensure inventors retain their rights under patent law while preventing the leakage of security-sensitive technological information. For designated non-public applications, the system preserves applicants' priority status and standard patent procedures while restricting patent filings—particularly for military-related technologies—to prevent the outflow of such inventions. Once the sensitivity diminishes, the application reverts to standard patent procedures.

## 2. Key Components of the Non-Publication System

Japan's patent confidentiality examination system adopts a "two-stage review" mechanism to implement special controls over technology patents involving national security.

The first stage involves technical field screening by the Patent Office. According to special provisions of the Patent Act, the Patent Office must determine within three months from the filing date whether a patent application falls under 25 specified technology categories. These categories are divided into basic groups (15 categories) directly covering sensitive areas such as national defense and state-commissioned R&D, and conditional groups (10 categories) that additionally require compliance with government ordinance requirements such as "significant impact on industrial development." During the screening period, patent applications remain in a special status: neither published nor entering regular examination, though applicants may concurrently submit formal examination requests.

The second stage features confidentiality examination led by the Cabinet Office. Upon receiving cases transferred from the Patent Office, the Cabinet Office organizes an interdepartmental expert team to conduct risk assessments, focusing particularly on the national security risk levels potentially caused by technical disclosure and the potential impacts of confidentiality measures on industrial development. If an application is preliminarily designated as confidential, the applicant must be notified to choose whether to proceed or withdraw. Once finally determined as a confidential patent, the application becomes irrevocable and foreign filings are prohibited. According to regulations, this produces six legal effects: 1) irrevocability of application; 2) requirement of administrative approval for implementation; 3) prohibition of technical disclosure; 4) mandatory information management; 5) allowance of joint patent rights; 6) prohibition of foreign applications.] The confidentiality period is renewable in one-year increments, with formal

notification required upon declassification. Violations involving foreign filings of confidential patents may incur criminal penalties of up to one year imprisonment and a fine of 500,000 yen.

Furthermore, Japan's non-publication system implements stringent control measures for designated patent applicants, comprising four core elements: First, a tiered implementation licensing system requiring special Cabinet approval for the use of confidential patents, supported by comprehensive anti-leakage mechanisms. Second, a prohibition on foreign filings of confidential patents, with a pre-assessment mechanism established as an exceptional channel. Third, a loss compensation mechanism providing remuneration for reasonable losses caused by technology controls. Fourth, a joint liability system extending confidentiality obligations to all parties with technical access. This system employs a "technology control-rights protection" dual-track design that maintains national security while safeguarding the legitimate interests of innovation entities.

### **3. Policy Suggestions for Enhancing the Confidential Patent System**

#### **(1) Establishment of a Technology Domain List and Exploration of Multi-tier Confidentiality Mechanisms**

Japan's practical experience in implementing a patent technology classification system is particularly noteworthy for reference. Through legislative measures, it has explicitly identified 25 specific technology categories requiring confidentiality protection, which are further subdivided into basic categories and conditional categories, while also establishing a dynamic adjustment mechanism. Currently, China's legal framework for confidential patents exhibits several areas requiring urgent improvement in practical implementation. For instance, the existing system employs overly broad definitions for the technical scope of confidential patents, and excessive discretionary power in the review process, which to some extent compromises the scientific rigor and consistency of decision-making. To address this situation, systematic optimization is recommended from the following two dimensions: First, a scientifically comprehensive classification system for confidential patent technologies should be established. Following international practices, core technology areas involving national security should be categorized in detail, such as dividing them into major groups including fundamental research, critical materials, and core processes, with secondary and tertiary subcategories under each major group. This list-based management approach can not only clearly define the technical boundaries of confidential patents but also significantly enhance the standardization and operability of review processes. During the formulation of this classification system, it is advisable to establish an evaluation committee comprising technical experts, legal specialists, and national security experts to ensure the list adequately addresses national security requirements while aligning with technological development patterns. Second, a multi-level confidentiality classification mechanism needs to be developed. Based on the importance and sensitivity of patented technologies, they can be classified into three confidentiality levels - top secret, confidential, and secret - with differentiated management protocols established for each level. Specifically: for top-secret patents, the most stringent control measures should be implemented, including

restricted access and enhanced physical protection; confidential-level patents may allow appropriately expanded access permissions while requiring comprehensive tracking mechanisms; secret-level patents can maintain greater flexibility for technology transfer while ensuring basic confidentiality requirements are met. This tiered management model not only aligns with the modern governance concept of "categorized management and targeted policies" but also effectively improves the allocation efficiency of confidentiality resources.

#### **(2) Introduce Expert Support and Optimize the Review Process**

The introduction of expert support to optimize the review process constitutes a crucial component in perfecting the confidential patent system. Japan's institutional design in this area offers valuable reference, with its expert participation mechanism demonstrating multiple institutional advantages. Japan's "Act on the Promotion of Economic Security" has established a comprehensive expert review system that emphasizes diversity in expert composition by incorporating both technical officials from government departments and professionals from academia and industry; systematically evaluates through multiple dimensions including technical sensitivity, security risk levels and industrial development impact; and ensures procedural standardization through a complete process covering expert selection, conflict of interest avoidance to review conclusion formulation.[2]

In the second-stage confidentiality review led by Japan's Cabinet Office, expert evaluation primarily focuses on two key areas: technical security risk assessment, where experts professionally judge whether technical content could be acquired by foreign entities and used to endanger national security if disclosed; and industrial impact assessment, where experts analyze the potential effects of confidentiality measures on innovation ecosystems and industrial competitiveness in relevant technical fields. This dual-dimensional professional evaluation mechanism ensures both the technical rigor of national security review and consideration of practical industrial development needs, embodying the institutional wisdom of balancing security and development.

In comparison, China's current confidential patent review process still has room for improvement in expert participation mechanisms. Based on international experience, recommendations are proposed to optimize China's expert review system from multiple aspects. The primary task is to establish a systematic expert support system by setting up a standing expert advisory committee covering various professional fields including defense technology, information security and industrial economics, while creating a classified expert database for precise matching of technical fields and formulating clear expert work guidelines to define responsibilities.

Process optimization should focus on advancing digital transformation through developing proprietary confidential patent review platforms. Such platforms should integrate automated preliminary review functions for intelligent technical field classification using natural language processing; incorporate risk warning functions to identify sensitive technical features through big data analysis; and enhance decision support functions by providing reviewers with reference to similar cases. This "machine preliminary review + manual verification" collaborative model can

significantly improve review efficiency while ensuring quality.

Equally important is the innovation of front-end service mechanisms. Pilot pre-review consultation services could allow applicants to obtain professional guidance through confidential channels before formal submission, including technical confidentiality risk assessment, application document completeness check and review process consultation. This forward-shifted service model helps applicants avoid potential risks while effectively reducing the workload of review agencies.

Through systematic institutional optimization, comprehensive improvements can be achieved across multiple dimensions including review quality, efficiency and transparency. Strengthened expert support will substantially enhance the accuracy of technical judgments, application of digital tools may significantly shorten review cycles, and standardized process design can increase stakeholder recognition of review outcomes. These improvement measures will ultimately achieve organic unification of national security assurance and innovation efficiency enhancement, providing strong support for perfecting China's confidential patent system.

#### (3) Establish and Improve a Dynamic Decryption Mechanism and Its Application

A dynamic decryption mechanism for confidential patents should be established to facilitate their transformation and application under the premise of safeguarding national security.[3] First, a classification-based decryption cycle should be introduced. Based on the patent technology list and the existing classification-based confidentiality framework, a corresponding decryption mechanism should be developed, with clearly defined decryption criteria. Second, a regular evaluation system should be implemented, incorporating cross-departmental expert panels to reassess the technical sensitivity of confidential patents, thereby enabling a dynamic and efficient decryption process. Third, supporting mechanisms such as a decryption evaluation information consultation platform, channels for rights holders to proactively apply for decryption, and appeal mechanisms for unsuccessful decryption attempts should be established to ensure scientific and systematic management of confidential patents. Fourth, market transformation incentive policies should be introduced for decrypted patents, including provisions for a 1 to 3-year market exclusivity period. These measures will not only protect national information security but also promote the commercialization of technological achievements, forming a closed-loop management system encompassing "examination – confidentiality – decryption – application." [4]

#### (4) Establish a Compensation System for Patent Applicants

Japan's confidential patent compensation system explicitly stipulates that applicants shall be compensated for both domestic and international losses incurred due to patent preservation, provided that a reasonable causal relationship between the losses and confidentiality measures can be demonstrated. Currently, China has not yet established a formal compensation system for confidential patents. The author believes Japan's system holds valuable reference significance and suggests establishing China's corresponding patent compensation system based on actual conditions.[5]

Firstly, the compensation scope should be clearly defined to include not only losses from restricted domestic implementation but also provable expected losses in overseas markets. Secondly, it is recommended that the National Intellectual Property Administration jointly with the Ministry of Finance establish a specialized agency to develop quantified compensation standards, conducting reasonable assessments with reference to factors such as the technology's commercial value and industry benefits. Furthermore, while ensuring the confidentiality of patented technologies, third-party evaluation institutions could be introduced to professionally determine the technology's value and causal relationships, thereby guaranteeing fair and reasonable compensation.[6]

## 4. Conclusion

The institutional design of Japan's patent application non-disclosure system embodies the wisdom of balancing modern intellectual property protection with national security. This system achieves precise confidentiality screening through a two-stage review mechanism, ensures clarity in the scope of confidentiality by relying on a specific technology domain list, and safeguards the legitimate rights and interests of innovators through a loss compensation mechanism. Such systematic institutional arrangements provide valuable references for other countries to improve their patent confidentiality systems.

Japan's experience demonstrates that a well-designed patent confidentiality system can achieve synergy among multiple policy objectives: maintaining national security without stifling technological innovation vitality; providing clear legal guidance for innovators while preserving necessary administrative discretion; and fulfilling sovereign security obligations while considering the economic realities of R&D activities. These institutional characteristics collectively constitute an advanced paradigm for balancing multiple policy priorities in an era of rapid technological change and evolving security threats.

## References

- [1] Koyu, I., Takahiro, C., Takuto, H., et al. (2022). Japan's Economic Security Promotion Act: Background and overview. *Asia-Pacific Review*, \*29\*(3), 28-55.
- [2] Mao, H., Liu, X., Dang, J. W., (2020). Institutional Experience of World-Class Patent Examination Agencies and Reform Responses [J]. *China Soft Science*, (2): 11-25.
- [3] Zhang, F., Zeng L., Huang C. F., Research on Problems and Strategies of Financial Support for the Transformation of National Defense Intellectual Property Rights [J]. *Science & Technology Progress and Policy*, 2020, 37(9): 138-144.
- [4] Zhu, K. Y., Zhao, S. Y., Xue, M., et al. (2015). Research on the problems and countermeasures of secrecy classification and declassification of defense patents. *Journal of Hefei University of Technology (Social Sciences)*, \*29\*(1), 125-130.
- [5] Ma, X., Zhang, K. A Brief Analysis of China's Confidentiality Review System for Patent Applications [J]. *China Invention & Patent*, 2018, 15(03): 90-93.
- [6] Li, L. (2018). *Research on Japanese patent law*. Shanghai: East China University of Science and Technology Press.