

## **Letter on Submitting Information on Inventive Step and Sufficiency of Disclosure**

January 28, 2015

To the International Bureau:

Please refer to the information below on the requirements of inventive step and sufficiency of disclosure as practiced now in China:

### **I. Inventive Step**

#### **(i) The definition of a person skilled in the art**

Part II Chapter 4 Section 2.4 of the Guidelines for Patent Examination provides for the definition of a person skilled in the art:

*Whether or not an invention involves an inventive step shall be evaluated on the basis of the knowledge and capability of the person skilled in the art. The person skilled in the art refers to a fictional "person" who is presumed to be aware of all the common technical knowledge and have access to all the technologies existing before the filing date or the priority date in the technical field to which the invention pertains, and have capacity to apply all the routine experimental means before that date. However, he is not presumed to have creativity. If the technical problem to be solved impels that person to seek technical means in other technical field, he should also be presumed to have access to the relevant prior art, common technical knowledge, and routine experimental means in the other technical field before the filing date or the priority date.*

#### **(ii) Methodologies employed for evaluating the inventive step**

In Part II Chapter 4 Section 3 of the Guidelines for Patent Examination, the approach to examination of inventive step is stipulated:

##### *3. Examination of Inventive Step of Invention*

*The determination as to whether or not an invention involves an inventive step shall be considered only when the invention has novelty.*

### *3.1 Principles of Examination*

*In accordance with Article 22.3, when the inventive step of an invention is examined, the examiner shall examine whether or not the invention has prominent substantive features and whether or not it represents notable progress.*

*When evaluating whether or not an invention involves an inventive step, the examiner shall consider not only the technical solution itself, but also the technical field to which the invention pertains, the technical problem solved, and the technical effects produced by the invention. The invention shall be considered as a whole.*

*In the examination of inventive step, it is permissible to combine together different technical contents disclosed in one or more prior art documents to assess the claimed invention, which is different from the principle of “separate comparison” in the examination of novelty (see Chapter 3, Section 3.1 of this Part).*

*If an independent claim involves an inventive step, there is no need to examine the inventive step of its dependent claims.*

### *3.2 Criterion for Examination*

*When the inventive step of an invention is assessed, Article 22.3 shall be the governing criterion for examination. In order to facilitate the understanding of this criterion, the typical approach to the assessment of prominent substantive features and the criterion for determining notable progress are respectively provided in the following.*

#### *3.2.1 Assessment of Prominent Substantive Features*

*To determine whether an invention has prominent substantive features is to determine, to the person skilled in the art, whether the claimed invention is non-obvious as compared with the prior art.*

*If the claimed invention is obvious as compared with the prior art, it does not have prominent substantive features. On the contrary, if the result of comparison shows that the claimed invention is non-obvious as compared with the prior art, it has prominent substantive features.*

##### *3.2.1.1 Approach to Assessment*

*Usually the following three steps are followed to determine whether a claimed invention is obvious as compared with the prior art.*

*(1) Determining the closest prior art*

*The closest prior art refers to a technical solution in the prior art that is the most closely related to the claimed invention, which shall be the basis for determining whether or not the claimed invention has prominent substantive features. The closest prior art may, for example, be an existing technology in the same technical field as the claimed invention, and its technical problem to be solved, technical effects, or intended use are the closest to the claimed invention, and/or has disclosed the greatest number of technical features of the claimed invention; or be an existing technology which, despite being in a different technical field from the claimed invention, is capable of performing the function of the invention and has disclosed the greatest number of technical features of the invention. It should be noted that, when determining the closest prior art, account shall be first taken of the prior art in the same or similar technical fields.*

*(2) Determining the distinguishing features of the invention and the technical problem actually solved by the invention*

*During examination, the examiner shall objectively analyze and determine the technical problem actually solved by the invention. For this purpose, the examiner shall first determine the distinguishing features of the claimed invention as compared with the closest prior art and then determine the technical problem that is actually solved by the invention on the basis of the technical effect of the distinguishing features. The technical problem actually solved by the invention, in this sense, means the technical task in improving the closest prior art to achieve a better technical effect.*

*In the course of examination, because the closest prior art identified by the examiner may be different from that asserted by the applicant in the description, the technical problem actually solved by the invention, which is redetermined on the basis of the closest prior art, may not be the same as that described in the description. Under such circumstance, the technical problem actually solved by the invention shall be redetermined on the basis of the closest prior art identified by the examiner.*

*The redetermined technical problem may depend on the particular situations of each invention. As a principle, any technical effect of an invention may be used as the basis to redetermine the technical problem, as long as the technical effect could be recognized by a person skilled in the art from the contents set forth in the description.*

*(3) Determining whether or not the claimed invention is obvious to a person skilled in the art*

*At this step, the examiner shall make a judgment, starting from the closest prior art and the technical problem actually solved by the invention, as to whether or not the claimed invention is obvious to a person skilled in the art. In the course of judgment, what is to be determined is whether or not there exists such a technical motivation in the prior art as to apply said distinguishing features to the closest prior art in solving the existing technical problem (that is, the technical problem actually solved by the invention), where such motivation would prompt a person skilled in the art, when confronted with the technical problem, to improve the closest prior art and thus reach the claimed invention. If there exists such a technical motivation in the prior art, the invention is obvious and thus fails to have prominent substantive features.*

**(iii) Having regard to the prior art, the level of inventiveness (obviousness) to meet the inventive step requirement**

According to Article 22.3 of the Patent Law of the People's Republic of China, inventiveness means that, as compared with the prior art, the invention has prominent substantive features and represents a notable progress, and that the utility model has substantive features and represents progress.

Part II Chapter 4 Section 2 of the Guidelines for Patent Examination sets forth the following provisions in regards to substantive features and notable progress:

*That an invention has prominent substantive features means that, having regard to the prior art, it is non-obvious to a person skilled in the art. If the person skilled in the art can obtain the invention just by logical analysis, inference, or limited experimentation on the basis of the prior art, the invention is obvious and therefore has no prominent substantive feature.*

*That an invention represents notable progress means that the invention can produce advantageous technical effect as compared with the prior art. For instance, the invention has overcome the defects and deficiencies in the existing technology, or has provided a different technical solution to solve a certain technical problem, or represents a certain new trend of technical development.*

## II. Sufficiency of Disclosure

### (i) Enabling disclosure requirement

As stipulated in Article 26.3 of the Patent Law of the People's Republic of China, the description shall set forth the invention or utility model in a manner sufficiently clear and complete so as to enable a person skilled in the relevant field of technology to carry it out.

In Part II Chapter 2 Section 2.1.3 of the Guidelines for Patent Examination, the provisions pertaining to the enabling disclosure requirement of the description are:

#### *2.1.3 Enablement*

*The description shall enable a person skilled in the art to carry out the invention or utility model. It means that the person skilled in the art can, in accordance with the contents of the description, carry out the technical solution of the invention or utility model, solve the technical problem, and achieve the expected technical effects.*

*The description shall clearly set forth the technical solution of the invention or utility model, describe in detail the specific modes for carrying out the invention or utility model, and entirely disclose the technical contents necessary for understanding and carrying out the invention or utility model, to such an extent that a person skilled in the art can carry out the invention or utility model. If the examiner can reasonably doubt that the invention or utility model does not meet the requirement of sufficient disclosure, he shall invite the applicant to make a clarification.*

*The following are examples of the circumstances in which the technical solution described in the description is regarded as unable to be carried out due to lack of technical means to solve the technical problem:*

*(1) the description sets forth only a task and/or an assumption, or simply expresses a wish and/or a result, providing no technical means that a person skilled in the art can implement;*

*(2) the description sets forth a technical means, but the means is so ambiguous and vague that a person skilled in the art cannot concretely implement it according to the contents of the description;*

*(3) the description sets forth a technical means, but a person skilled in the art cannot solve the technical problem of the invention or utility model by adopting said means;*

*(4) the subject matter of an application is a technical solution consisting of several technical means, but one of the means cannot be implemented by a person skilled in the art according to the contents of the description; and*

*(5) the description sets forth a concrete technical solution but without experimental evidence, while the solution can only be established upon confirmation by experimental result. For example, in general, the invention of a new use for a known compound requires experimental evidence in the description to validate the new use and effects thereof; otherwise, the requirement of enablement cannot be met.*

## **(ii) Support requirement**

As provided in Article 26.4 of the Patent Law of the People's Republic of China, the claims shall be supported by the description and shall define the extent of the patent protection sought for in a clear and concise manner.

Part II Chapter 2 Section 3.2.1 of the Guidelines for Patent Examination stipulates as follows regarding the support requirement of the description:

### *3.2.1 Support in the Description*

*"The claims shall be supported by the description" means that the technical solution for which protection is sought in each of the claims shall be a solution that a person skilled in the art can reach directly or by generalization from the contents sufficiently disclosed in the description, and shall not go beyond the scope of the contents disclosed in the description.*

*Claims are usually generalizations from one or more embodiments or examples as set forth in the description. The generalization of a claim shall not go beyond the scope of the contents disclosed in the description. If the person skilled in the art can reasonably predict that all the equivalents or obvious variants of the embodiments set forth in the description have the same properties or uses, then the applicant shall be allowed to generalize the protection extent of the claim to cover all the equivalents or obvious variants. In determining whether the generalization of a claim is appropriate, the examiner shall refer to the relevant prior art. An invention which opens up a whole new field of technology is entitled to more generality in the claims than one that is concerned with advances in a known technology.*

*For claims generalized in generic terms or by parallel options, the examiner shall examine whether the generalization can be supported by the description. Where the*

*generalization of a claim includes contents speculated by the applicant and the effect thereof is difficult to determine or evaluate beforehand, the generalization shall be regarded as going beyond the scope of the contents disclosed in the description. If the generalization of a claim is such that the person skilled in the art can reasonably doubt that one or more specific terms or options included in the generic terms or parallel options cannot solve the technical problem aimed to be solved by the invention or utility model and achieve the same technical effects, then it shall be taken that the claim is not supported by the description. In these cases, the examiner shall raise an objection of lack of support on the ground of Article 26.4 and invite the applicant to amend the claim.*

*For example, considering such a broadly generalized claim as “a method of affecting substances with high frequency electric energy”, if the description contains only one embodiment of “eliminating dust from gas with high frequency electric energy” without any description of methods for affecting other substances with high frequency electric energy, and a person skilled in the art is unable to determine or evaluate beforehand the effect of affecting other substances with high frequency electric energy, then the claim shall be taken as lacking support in the description.*

*For another example, considering another broadly generalized claim “a method for treating seeds of plant by controlling the freezing time and depth”, if the description contains only method for treating the seeds of one kind of plant without involving any other kind of plant, and an artisan in horticulture is unable to determine or evaluate beforehand the effect of treating seeds of other kinds of plant by such a method, then the claim shall also be taken as lacking support in the description. Only when the general relationship between the seeds of this kind of plant and those of other kinds of plant has been indicated in the description, or sufficient embodiments have been described, so that an artisan in horticulture can understand how to use this method to treat the seeds of all kinds of plant, can the claim be regarded as having support in the description.*

*As for a broadly generalized claim relating to the whole class of products or machines, if it is fairly supported by the description, and there is no reason to suppose that the invention or utility model cannot be worked through the whole of the field claimed, then the claim may be acceptable even if its extent of protection is broad. However, if the information given in the description is insufficient to enable a person skilled in the art to extend the teaching of the description to the extent of protection claimed in the claim by using routine methods of experimentation or analysis, the examiner shall invite the applicant to explain and establish that a person skilled in the art can readily extend the invention or utility model to the extent of protection claimed in the claim on the basis of the information given in the description; otherwise, the*

*examiner shall invite the applicant to restrict the claim. For example, concerning the claim “a method for treating synthetic resin mouldings to obtain changes in characteristics”, if the examples described in the description relate only to thermoplastic resins, and the applicant cannot establish that this method is also applicable to thermosetting resins, then the applicant shall restrict the claim to thermoplastic resins.*

*Usually, for product claims, features of function or effect shall be avoided as far as possible to be used in defining the invention. It is only when a certain technical feature cannot be defined by a structural feature, or it is more appropriate to be defined by a feature of function or effect than by a structural feature, and the function or effect can be directly and affirmatively verified by experiments or operations as stated in the description or by customary means in the art, that definition by features of function or effect in a product claim can be permissible.*

*Technical feature defined by function in a claim shall be construed as embracing all the means that are capable of performing the function. For claim containing a feature defined by function, whether the definition by function can be supported by the description shall be examined. If the function is carried out in a particular way in the embodiments of the description, and the person skilled in the art would not appreciate that the function could be carried out by other alternative means not described in the description, or the person skilled in the art can reasonably doubt that one or more means embraced in the definition by function cannot solve the technical problem aimed to be solved by the invention or utility model and achieve the same technical effect, then the definition by function as embracing the other alternative means or means incapable of solving the technical problem shall not be allowed in the claim.*

*Furthermore, if the description merely states in vague terms that other alternative means may be adopted, but the person skilled in the art cannot understand what they might be or how they might be used, then definition by function in the claims is not permitted. In addition, claim of pure functional definition cannot be supported by the description, and therefore is not permitted.*

*When determining whether a claim is supported by the description, the examiner shall take into account the whole contents of the description, rather than merely the contents in the part of specific mode for carry out the invention or utility model. If other parts of the description also include contents concerning embodiments or examples, and it can be established the generalization of the claim is appropriate viewed from the whole contents of the description, then the claim shall be considered to have support in the description.*

*For the claims including both independent and dependent claims or different kinds of claims, each of the claims shall be examined as to whether it is supported by the description. That an independent claim is supported by the description does not mean its dependent claims are necessarily supported by the description; that a process claim is supported by the description does not mean the product claim is necessarily supported by the description.*

*Where part or all of the contents of the claimed technical solution are described in the claims of the application as filed but not described in the description, the applicant is permitted to add those contents into the description. However, that the technical solution in a claim has the same wording as that in the description does not mean the claim is necessarily supported by the description. It is only when the technical solution as defined in a claim can be reached directly or by generalization by a person skilled in the art from the contents sufficiently disclosed in the description that the claim defining that technical solution can be regarded as having support in the description.*

### **(iii) Written description requirement**

In accordance with Article 26.3 of the Patent Law of the People's Republic of China, the description shall set forth the invention or utility model in a manner sufficiently clear and complete so as to enable a person skilled in the relevant field of technology to carry it out.

Therefore, in addition to the enabling disclosure requirement, the description shall also meet the requirements of clarity and completeness, which are provided respectively in Part II Chapter 2 Section 2.1.1 and 2.1.2 in the Guidelines for Patent Examination:

#### *2.1.1 Clarity*

*The contents of the description shall be clear, and specifically shall meet the following requirements:*

*(1) the subject matter shall be clear. The description shall, starting from the prior art, clearly set forth what the invention or utility model wants to do and how to do so as to enable a person skilled in the art to precisely understand the subject matter of the invention or utility model for which protection is sought. In other words, the description shall disclose the technical problem the invention or utility model aims to solve and the technical solution adopted to solve the problem; and state, with reference to the background art, the advantageous effects of the invention or utility model. Said technical problem, technical solution, and advantageous effects shall be adapted to one another and free of contradiction or irrelevancy; and*

*(2) the expression shall be precise. The description shall use terms of the technical field to which the invention or utility model pertains. The description shall precisely express the technical contents of the invention or utility model without any ambiguity or equivocation that may prevent a person skilled in the art from understanding the invention or utility model clearly and properly.*

#### *2.1.2 Completeness*

*A complete description shall include all the technical contents that are necessary for understanding and carry out the invention or utility model.*

*A complete description shall include the following contents:*

*(1) the contents which are indispensable for the understanding of the invention or utility model, such as the description of the relevant technical field and the state of the background art and the brief description of the drawings if any;*

*(2) the contents that are needed for determining whether or not the invention or utility model possesses novelty, inventive step and practical applicability, such as the technical problem to be solved by the invention or utility model, the technical solution adopted to solve the problem, and the advantageous effects of the invention or utility model; and*

*(3) the contents that are needed for carrying out the invention or utility model, such as the mode for carrying out the technical solution adopted to solve the technical problem of the invention or utility model.*

*For an invention or utility model that overcomes a technical prejudice, the description shall explain why the invention or utility model is said to have overcome the technical prejudice, the difference between the new technical solution and the technical prejudice, and the technical means adopted to overcome the technical prejudice.*

*It should be noted that all the relevant contents that a person skilled in the art cannot obtain directly or solely from the prior art shall be described in the description.*

State Intellectual Property Office  
of the People's Republic of China