

## **Part I: SPECIFICATION**

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## ***Chapter 1 Description Requirements of the Specification***

### **1. Object of the Specification**

The object of Patent System is to encourage inventions by promoting their protection and utilization so as to contribute to the development of industry (Patent Law Section 1).

The Patent System promotes protection of inventions by granting a patent right or exclusive right under certain conditions for a certain period of time to those who have developed and disclosed new technology, while it gives the public an opportunity to gain access to the invention by disclosing technical details of the invention. The protection and utilization of an invention as described above are promoted through a patent specification and drawings which serve both as a technical document disclosing technical details of an invention and as a document of title defining the technical scope of a patented invention accurately.

Requirements for description of the “detailed description of the invention” in a specification are provided under Patent Law Section 36(4), and requirements for description of the claims are provided under Patent Law Section 36(5) and (6). Only a specification that meets these requirements serves both as a technical document and as a document of title.

### **2. Description Requirements of the Claims**

The description requirements of the claims have important significance in that the technical scope of the patented invention is determined on the basis of the statements of the claim. When the claims do not satisfy the description requirements of the claims, not only the third party may be unduly restricted by the patent right, but the right holder himself also has to be involved in unnecessary disputes. Therefore, this point should be fully taken into account in examining whether or not the description requirements of the claims are met.

#### **2.1 Patent Law Section 36(5)**

Patent Law Section 36(5)

In the patent claim under Subsection(3)(iv), there shall be set forth, by statements separated on a claim by a claim basis, all matters which an applicant for a patent considers necessary in defining an invention for which a patent is sought. In such a case, it shall not preclude the statements of the patent claim(s) to be such that an invention claimed in one claim is the same as an invention claimed in another claim.

(1) The first sentence of Section 36(5), therefore, provides that matters which the applicant deems necessary to define the invention for which a patent is sought be stated in the claim without excess or shortage, so that (s)he neither states unnecessary matters nor omits necessary matters.

Since it is the applicant who determines for what invention to seek a patent, this Section sets forth that the applicant shall state in the claim all matters the applicant himself/herself deems necessary to define the invention for which a patent is sought.

The second sentence of the revised Section 36(5) is the same as was previously provided under Section 36(6). This sentence is provided in order to assure to refrain from the first sentence being misunderstood that a single invention shall not be defined in more than a single claims.

(2) Section 36(5) also makes clear the nature of the claims. By clearly providing that it is in a

claim that an applicant states matters which (s)he deems necessary to define the invention for which a patent is sought, this Section makes clear that the technical scope of the patented invention is determined on the basis of the statements of the claim and that the subject of the examination is the invention identified based on the statements of the claim.

(3) Since it should be at the applicant's own volition to determine whether or not matters to be stated in a claim are necessary and sufficient to define the invention for which a patent is sought, it is not proper for the examiner to determine that any matter stated in a claim, which the applicant considers necessary to define the invention for which a patent is sought, is unnecessary or that further matters are necessary in addition to those stated in a claim, which the applicant deems as sufficient to define the invention for which a patent is sought. For this reason, Section 36(5) is not provided as a basis for decision of refusal of an application, opposition to nor invalidation of a patent.

(4) The patent claim(s) must be separated into one or more claims each of which sets forth matters which the applicant deems necessary to define the invention for which a patent is sought. A claim constitutes a basic unit for the determination of patentability (Patent Law Sections 29, 29<sup>bis</sup>, 39 and 32), effect of a patent right (Section 68), abandonment of a patent right (Section 97), filing of a patent opposition (Section 113), demanding of a trial for invalidation (Section 123), registration fees (Sections 107 and 195), etc.

## **2.2 Patent Law Section 36(6)**

The statement of the patent claim(s) under Subsection (3)(iv) shall comply with each of the following paragraphs:

- (i) statements setting forth the invention(s) for which a patent is sought and which is described in the detailed description of the invention;
- (ii) statements setting forth the invention(s) for which a patent is sought and which is clear;
- (iii) statements setting forth the claim(s) which is concise;
- (iv) statements which are as provided for in an ordinance of the Ministry of Economy, Trade and Industry.

### **2.2.1 Patent Law Section 36(6)(i)**

(1) To state in a claim an invention that is not described in the detailed description of the invention means to seek a patent protection for an invention which is not disclosed to the public. Section 36(6)(i) is intended to prevent this happening.

(2) A determination on whether an invention for which a patent is sought is "the one described in the detailed description of the invention" should be made based on whether a matter corresponding to what is claimed is written in the detailed description of the invention.

Thus, where a matter corresponding to what is claimed is not written in the detailed description of the invention, it constitutes a violation of Section 36(6)(i).

Here, "not written" means the following cases:

- ① it is clear for a person skilled in the art (See 3.2) that a matter corresponding to what is claimed is neither stated nor implied in the detailed description of the invention, or
- ② terms used in the claims and those used in the detailed description of the invention are inconsistent for a person skilled in the art, and as a result, the relation between the claim

and the detailed description of the invention is unclear.

Namely, if what is claimed could be understood from the statements and implications in the detailed description of the invention, the examiner should not deem that a matter corresponding to what is claimed is “not written” in the detailed description of the invention.

#### **2.2.1.1 Typical Examples of Violation of Section 36(6)(i)**

(1) It is clear for a person skilled in the art that a matter corresponding to what is claimed is neither stated nor implied in the detailed description of the invention.

Example 1: A claim has a numerical limitation while any specific numerical value is neither stated nor implied in the detailed description of the invention.

Example 2: A claim is solely directed to an invention using an ultrasonic motor while the detailed description of the invention states only the embodiment of the invention using a D.C. motor and it neither states nor implies anything about using an ultrasonic motor.

(2) Terms used in the claims and those used in the detailed description of the invention are inconsistent for a person skilled in the art, and as a result, the relation between the claim and the detailed description of the invention is unclear.

Example 3: It is unclear whether the “data processing means” of a word processor stated in the claims corresponds to the “means for changing the size of characters,” the “means for changing line spacing” or both of them which are stated in the detailed description of the invention.

#### **2.2.2 Patent Law Section 36(6)(ii)**

(1) The statement in the claim is to be used for the basis of identifying the claimed invention which is an object for judgement of requirements for patentability such as novelty and inventive step, etc., and also used to secure the mission as a title document for specifying the technical scope of the patented invention. Thus, it is necessary that an invention can be clearly identified from one claim.

This Section is intended to maintain these functions of claims and make it clear that claim statements should be such that an invention for which a patent is sought can be clearly identified. Where an invention for which a patent is sought cannot be clearly identified on the basis of statements of each claim, one cannot find a claimed invention which is a subject of examination on patentability such as novelty or inventive step, etc., nor understand the technical scope of a patented invention.

For an invention for which a patent is sought being clearly identified, it is necessary that the scope of concrete things which pertain to an invention for which a patent is sought (hereinafter referred to as “the scope of an invention”) (Note 1), and, as a premise, matters stated to define an invention for which a patent is sought should be clearly understood.

(Note 1) The judgement of requirements for patentability such as novelty and inventive step and the understanding of the technical scope of the patented invention for which a patent is sought usually be made on the basis of concrete things which pertain to an invention for which a patent is sought as a clue.

(2) Considering that a claim constitutes a basic unit for the effect of a patent right and registration fees, etc., a single invention should be identified based on the statement of a single claim (Refer to 2.2.2.1(4)).

(3) Identification of a claimed invention should be made primarily based on the matters which an applicant for a patent considers necessary in defining the invention for which a patent is sought under Section 36(5) (hereinafter merely referred to “matters to define an invention” or “matters defining an invention”), while the description in the specification (excluding claims) (hereinafter merely referred to “specification” for the purpose of explaining each of the paragraphs under Section (36)), drawings and common general knowledge as of the filing (Note 2) may be taken into consideration in interpreting the meanings or contents of matters (terms) defining the invention.

In the identification of a claimed invention, matters not stated in a claim should not be considered. On the contrary, (s)he must consider the matters to define an invention as far as they are stated in the claim.

(Note 2) The common general knowledge means technologies generally known to a person skilled in the art or matters clear from empirical rules. Therefore, the common general knowledge includes method of experimentation, of analysis, of manufacture, etc., as far as they are generally known to a person skilled in the art. Whether or not a certain technical matter is generally known to a person skilled in the art should be determined based upon not only how many documents show the technical matter but also how much attention has been given to the technical matter by such a person. The common general knowledge is a broader concept than the well-known art and the commonly used art.

(“Well-known art” means technologies generally known in the relevant technical field, e.g., by many prior art documents, those widely known throughout the industry, or those well-known to the extent needless to present examples. “Commonly used art” means well known art which is used widely.)

(4) Where the statement in a claim are deemed clear by itself, the examiner should examine whether a term in the claim is defined or explained in the specification (excluding claims) and drawings, and evaluate whether such definition or explanation, if any, makes the claim statements unclear. For example, if a clear definition of a term used in a claim, which is either completely inconsistent with or different from what it normally means, is placed in the detailed description of the invention, such a definition could make the invention unclear. This is because such a definition could raise a confusion in interpretation of the term under the practice for identification of a claimed invention which is done by taking into consideration the description in the specification, drawings and common general knowledge as of the filing although the primary basis for the identification is statements of the claim.

Where the statement in a claim are deemed unclear by itself, the examiner should examine whether a term in the claim is defined or explained in the specification (excluding claims) and drawings, and should evaluate whether such definition or explanation, if any, makes the claim statements clear by considering the common general knowledge as of the filing. If the examiner deems that an invention can be clearly identified as a result of this evaluation, the requirement of Section 36(6)(ii) is met.

(Matters to be attended)

① Section 36(5) provides that “In the patent claim(s), all matters which an applicant for a patent considers necessary in defining an invention for which a patent is sought.” Considering the spirit of this Section, various forms of expression can be used in the claim by the applicant to define an invention for which a patent is sought.

For example, in the case of “an invention of a product,” various forms of expression such as operation, function, quality, characteristics, method, usage and others can be used as matters to define an invention in addition to the forms of expression such as combination of products or the structure of products. Similarly, in the case of “an invention of a process (a sequence of acts or operations connected in time series),” productions used therefor and others can be used as the forms of expression for defining an invention in addition to such form of combination of processes (acts or operations).

② On the other hand, since a claim should be stated in such a manner that an invention for which a patent is sought can be clearly identified from a single claim according to the provision of Section 36(6)(ii). Therefore, it should be noted that such definition of an invention is allowed as far as the claimed invention can be clearly identified.

For example, in the technical field where the structure of a product can hardly be predicted from its function, work, property or characteristics (hereinafter referred to “function or characteristics, etc.”), it should be noted that the scope of an invention tends to be unclear in many cases as a result of defining the product by its function or characteristics, etc. (e.g. inventions of chemical substances). The same is applied to cases where a claim includes the definition of a product by a unique parameter (Note 3).

(Note 3) “Unique parameters” means those which fall under (i) or (ii) below:

- (i) a case where the parameter is neither standard, commonly used by a person skilled in the art in the relevant technical field nor comprehensible of its relation to a commonly used parameter to a person skilled in the art if the parameter is not commonly used; or
- (ii) a case where plural of parameters each of which is either standard, commonly used by a person skilled in the art in the relevant technical field or comprehensible of its relation to a commonly used parameter to a person skilled in the art if the parameter is not commonly used, are combined in a claim so that the claim statements as a whole fall under (i).

#### **2.2.2.1 Typical Examples of Violation of Section 36(6)(ii)**

Typical examples of statements in the specification violating Patent Law Section 36(6)(ii) are shown below.

(1) The invention for which a patent is sought is unclear resulting from the statement of the claim itself being unclear.

An example is a case where a claim includes statements inadequate as Japanese language expression such as errors or ambiguous description, thereby a claimed invention is made unclear.

It is not a violation of Section 36(6)(ii), however, if defects in the claim statements are minor and do not place the claimed invention unclear to a person skilled in the art.

(2) The invention for which a patent is sought is unclear resulting from the technical defect existing in matters defining the invention or from the technical meaning or technical relation of matters defining the invention being not comprehensible.

① Claim states technically incorrect matters.

Example 1: "Alloy composed of 40 to 60wt% A, 30 to 50wt% B, and 20 to 30wt% C"

In this claim statement, the total sum of the maximum amount of component A and the minimum amounts of components B and C exceeds 100wt%.

② Technical meaning of matters defining the invention can not be understood.

When the technical meaning of the matters defining the invention can not be understood, the finding of a claimed invention, which is the premise of judgement of requirements for patentability such as novelty and inventive step, etc., can not be performed. Thus It constitutes the violation of Section 36(6)(ii).

Example 1: "Dying powder defined in a specific numerical limitation of a specific formula X" (The specific formula X is shown only as a result to be obtained and its technical meaning can not be understood even when taking into consideration the description in the specification and drawings, and the common general knowledge as of the filing. However, when the process that leads to the formula or the reason to determine the numerical limitation of the formula, etc., (including the case where the numerical limitation is obtained from the result of the experimentation) are described in the specification, the technical meaning may be understood in most cases.)

Example 2: "Composition for adhesion including component Y of which viscosity is measured in accordance with the test method in X laboratory is a – b Pascal second." (The technical definition or test method in X laboratory is not shown in the detailed description of the invention, and they are not the common general knowledge as of the filing.)

③ Matters defining the invention are inconsistent.

Example 1: A claim is directed to "a method for producing a final product D comprising the first step for producing an intermediate product B from a starting material A and the second step for producing the said final product D from an intermediate product C" in which the intermediate product produced by the first step is different from the starting material in the second step, and the relation between the first step and the second step is not clear to a person skilled in the art even if interpreting the meaning of "the first step" and "the second step" stated in the claim by taking into consideration the description of the specification, drawings and the common general knowledge as of the filing.

④ Matters defining the invention are not related technically.

Example 1: "A road on which automobiles mounting a specific engine are traveling."

Example 2: "An information transmission media transmitting a specific computer program."

The transmission of information is a function inherent to the transmission media. To define the invention to be "an information transmission media transmitting a specific computer program" only means that a specific computer program is being transmitted at any time and to any place on the information transmission media. It defines the only inherent function of the transmission media, and does not specify any relation between the information transmission media and the computer program.

⑤ Non-technical matter is stated in a claim as a whole as a result of existence of such statements as sales area or distributors.

(Note) Where a claim includes a statement to define a product by means of a trademark, such a statement is deemed as making unclear the claimed invention unless it is clear to a person skilled in the art that the product had been maintained a certain quality, composition and structure, etc., at least for a certain period of time to the filing date.

(3) The category of an invention for which a patent is sought is unclear, or something that falls in neither products nor processes is stated in a claim.

Patent Law provides that “a patentee shall have an exclusive right to commercially work the patented invention” (Section 68), and gives definitions to the term “working of an invention” by categorizing inventions into an “invention of a product,” an “invention of a process,” and an “invention of a process of manufacturing a product.” In considering them, it is inadequate to grant a patent to the claimed invention in the below-mentioned examples because it makes unclear the extent of protection.

Example 1: A claim reading as “A method or apparatus comprising ....”

Example 2: A claim reading as “A method and apparatus comprising ....”

Example 3: A claim which cannot be determined whether it is directed to a product or a process as a result that the claim states only operations, works, properties, objectives or effects of things. An example is a claim directed to “an anti-cancer effect of chemical substance A.”

Such terms in a claim as “*houshiki*” or “*system*” (e.g., “*denwa houshiki*” or “*telephone system*”) are interpreted as those meaning the category of a product. “*Shiyou*” and “*riyou*” (i.e., the use) are interpreted as terms meaning a method for using things which is categorized into a “process.” “Use of substance X as an insecticide” is interpreted as terms meaning “method for using substance as an insecticide.” “Use of substance X for the manufacture of a medicament for therapeutic application Y” is interpreted as terms meaning “method for using substance X for the manufacture of a medicament for therapeutic application Y.”

(4) Matters to define the invention are expressed in alternatives and the alternatives have no similar nature with one another. (See Note.)

(Note) Hereinafter in this chapter, “alternatives” mean a group of inventions each of which is identified by supposing that each of alternatives stated in a claim is a matter to define each of such inventions.

① In the light of the spirit of Section 36(6)(ii), an invention must be clearly identified from a claim by a person skilled in the art. Also, when considering that a claim constitutes a basic unit for the effect of patent right and the registration fees, etc., an invention that is to be a single technical idea must be identified based on statements of the claim. Further, it is inadequate to permit plural of inventions to be claimed in a single claim by using alternative form if such inventions are those which must not be filed in a single application under Section 37 (unity of application).

② Therefore, when there exist alternatives related to matters to define an invention for which a patent is sought, it shall be a violation of Section 36(6)(ii) unless these alternatives have a similar nature with one another.

In order for alternatives to have a similar nature with one another, the group of inventions



each of which is identified by supposing each of alternatives stated in a claim being a matter to define each of such inventions shall pertain to the same technical field, and one of the following conditions shall be met; (a) the group of inventions have in common a technical problem to be solved by the inventions which has been unsolved until the time of filing, or (b) the group of inventions have in common a substantial part of matters to define the invention i.e., a part of matters to define the invention which is novel and corresponds to the problem to be solved. Since the conditions (a) and (b) are the same as the practice in the requirements under Sections 37(i) and (ii) (unity of application), the examiner should avoid unnecessarily strict application of the requirements. Also, it should be noted that there exists a difference between “the technical field to which an invention pertains” mentioned above and “the field of industrial application of the invention” under Section 37 in that the latter, unlike the former, includes technical fields which are directly related to the technical field to which the invention pertains. (Refer to Chapter 2. “Unity of Application”).

The following examples constitute violation of Section 36(6)(ii) regardless of its compliance or non-compliance with the conditions (a) or (b) because the alternatives in any of the examples do not pertain to the same technical field.

Example 1: A claim is directed to “specific parts or an apparatus including said parts.”

Example 2: A claim is directed to “a transmitter or a receiver which has a specific power supply.”

Example 3: In a claim, an intermediate and a final product of a chemical substance are defined in an alternative form. It is not a violation of the requirements, however, if the intermediate per se is a final product and the intermediate and other final products meet requirements for description of Markush-type formula (See ③ below).

③ Where the claim statements in an alternative form such as Markush-type formula are directed to chemical substances, they are considered to have a similar nature if the following criteria are fulfilled:

(i) all alternatives have a common property or activity; and either

(ii)(a) a common structure is present, i.e., a significant structural element is shared by all of the alternatives, or

(b) if the common structure cannot be the unifying criteria, all alternatives belong to a recognized class of chemical substances in the art to which the invention pertains.

That “significant structural element is shared by all of the alternatives” in (ii)(a) above refers to cases where the compounds share a common chemical structure which occupies a large portion of their structures, or if the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art. The structural element may be a single component or a combination of individual components linked together.

In cases where at least one alternative of Markush-type formula is not novel, reconsideration should be made whether a single invention can be clearly identified.

Further, “recognized class of chemical compounds” in (ii)(b) above means that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention. In other words, each member could be substituted one for the other, with the expectation that the same intended result would be achieved.

(5) When the scope of the invention is unclear as a result of the following expression:

① Negative expressions such as “except...” and “not...” in claims

② Expressions using a numerical limitation which only indicates either a minimum or a maximum such as “more than...” and “less than...”

③ Expressions where the standard or degree of comparison is unclear such as “with slightly greater specific gravity,” “much bigger,” “low temperature,” “high temperature,” “hard to slip,” “easy to slip” or where the meaning of the term is unclear.

④ Expressions where optionally added items or selective items are described along with such words as “when desired,” “if necessary,” etc., or expressions including such words as “especially,” “for example,” “etc.,” “desirably,” and “suitably.”

Such expressions would leave unclear the condition on which of the optionally added or selective items are chosen, thus allow the claim statements to be interpreted in many ways.

⑤ A numerical limitation which includes zero (0) such as “from 0% to 10%.”

When it is clearly stated in the detailed description of the invention that the component defined by the numerical limitation is indispensable in the above-mentioned example, such statement is inconsistent with the claim statement “from 0 to 10%” which would be interpreted as the component being discretionary and also interpreted in many ways, and the extent of the invention is deemed unclear. Conversely, if it is clearly stated in the detailed description of the invention that the component defined by the numerical limitation is discretionary, the numerical limitation including zero (0) is permissible.

⑥ A statement of a claim is made by a reference to the detailed description of the invention or drawings, and as a result, the extent of the invention for which a patent is sought is unclear.

Example 1: A claim which includes such statement made by a reference as “an automatic drill machine as shown in Figure 1.”

(It is inadequate to refer to drawings because drawings generally have ambiguous meanings and could be interpreted in many ways.)

Example 2: A claim which includes statements made by a reference to a portion that cannot be clearly pointed out in the detailed description of the invention or drawings.

Note that, even by referring to the detailed description of the invention or drawings, an invention can be stated clearly in a claim as in the following case.

Example: In an invention related to an alloy, there is a specific relation among components of the alloy and the relation can be defined by reference to the drawings as clearly as by a numerical or other literal expression.

“Heat-resisting Fe · Cr · Al alloy for electric-heating composed of Fe, Cr, Al within the scope circumscribed by points A( ), B( ), C( ), and D( ) shown in the Figure 1 and impurities less than X%.”

(6) A claim includes statements defining the product by its function or characteristics, etc., so that the scope of the invention is unclear. (Note 1) (Refer to “examples of examinations” for concrete cases).

①When all of the matters to define the invention relate to concrete structures or concrete means, etc., the scope of the invention is usually clear and an invention for which a patent is sought can be clearly identified from the statements of the claim. On the other hand, when the claim includes matters defining a product by its function or characteristics, etc., (Note 2) the scope of the invention cannot necessarily be clear and an invention for which a patent is sought may not be clearly identified.

Where a claim includes the definition of a product by its function or characteristics, etc., if a person skilled in the art can conceive a concrete product with such function or characteristics, etc., by taking into consideration the common general knowledge as of the filing, the concrete matters, which are clue for the judgement of requirements for patentability such as novelty and inventive step, etc., and for understanding the technical scope of the patented invention, can be understood. Accordingly, the scope of the invention is clear so that the invention for which a patent is sought is clearly identified.

On the contrary, when a person skilled in the art cannot conceive a concrete product with such function or characteristics, etc., even by taking into consideration the common general knowledge as of the filing, since the concrete matters pertaining to the invention cannot be understood, the scope of the invention usually cannot be deemed clear.

However, even when a concrete product can not be conceived, if the invention disclosed in the specification or the drawings cannot be properly identified unless defining the product by its function or characteristics, etc., it is not appropriate to determine that the scope of the invention is unclear only on the basis of the ground that a concrete product can not be conceived. In this case, if the relation between the product with the function or characteristic, etc., concerned and the technical standard as of the filing can be understood, the scope of the invention should be treated as being clear (Note 3).

(Note 1) Although this paragraph deals with the treatment of the claim including statements defining a “product” by its function or characteristic, etc., the same treatment is applied to the claim including statements defining a method or a process, etc., by its function or characteristic, etc.

(Note 2) In principle, a function or characteristics, etc., to define a product shall be standard one. Namely, it should be either one which is defined by JIS (Japan Industrial Standard), ISO-standard (International Standardization Organization) or IEC-standard (International Electrical Committee), or one which can be determined by a method for testing or measuring provided in these standards. (For example, “specific gravity” or “boiling-point.”).

When a function or characteristics, etc., to define a product is not standard one, the definition or method for testing or measuring thereof should be explicitly described in the detailed description of the invention and it should be made clear that such function, etc., stated in a claim is to be defined and tested by such definition or method except where it is either one which is commonly used by a person skilled in the art or one which a person skilled in the art can understand the definition or method for testing or measuring thereof.

(Note 3) Where a concrete product pertaining to the invention for which a patent is sought cannot be conceived, there may be cases where the invention disclosed in the specification or drawings cannot be properly identified unless defining the product by a unique parameter or its manufacturing process, and it is not appropriate to regard such an invention as unclear only on the basis of the ground that a

concrete product cannot be conceived, in the light of the purpose of the Patent Law to protect the invention contributing to the industrial development.

However, even in such cases, if the relation between the product defined by such function, etc., concerned and the technical standard as of the filing cannot be understood, since the clue for judgement of requirements for patentability such as novelty and inventive step, etc., and for understanding the technical scope of the patented invention cannot be obtained, the mission conferred to the claim cannot be said having been fulfilled. Accordingly, the scope of the invention is dealt to be clear only when the relation between the product defined by its function, etc., and the technical standard as of the filing can be understood.

②Accordingly, where the claim includes the definition of a product by its function or characteristic, etc, whether or not the scope of the invention is clear should be determined as follows.

When a person skilled in the art can conceive a concrete product with such function, etc., (for example, well-known concrete products with such function, etc., can be illustrated, concrete products with such function, etc., can be easily arrived at, or such definition is commonly used to define the product in the relevant technical field, etc.) from the statements in a claim defining the product by its function, etc., by taking into the common general knowledge as of the filing (including those which can be recognized to be the common general knowledge as of the filing from the description in the specification or drawings), the scope of the invention is deemed clear.

On the contrary, even when a concrete product with such function, etc., cannot be conceived, it cannot be said that the scope of the invention is unclear in the following conditions:

- (i) it is understood that the invention disclosed in the specification or the drawings cannot be defined unless defining the product by its function or characteristic, etc., and
- (ii) the relation between the product with such function or characteristic, etc., and the technical standard as of the filing can be understood.

For example, when the relation (difference) between the product with such function, etc., and the known products are shown with the experimental result or theoretical explanation, etc., the relation with the technical standard can be understood.

In cases where either (i) or (ii) is not satisfied, the scope of an invention is deemed unclear.

③Examples where the scope of the invention is deemed unclear

- (i) In the technical field where it is difficult to predict the structure of the product from its function or characteristic, etc., the concrete product with such function, etc., cannot be conceived in many cases (Example: Invention of a chemical compound). When the structure of a certain concrete product with such function or characteristics, etc., is disclosed in the specification or drawings and it is also recognized that only the said concrete product is substantially disclosed, the scope of the invention is deemed unclear. In such cases, since it usually cannot be said that the invention disclosed in the specification or drawings can not be properly identified unless defining the product by its function, etc., and it is also difficult to show its relation with the technical standard as of the filing, the scope of the claimed invention is deemed unclear.
- (ii) Where the claim includes the definition of a product by the result to be achieved, there

may be cases where concrete products which can obtain such result can not be conceived. When a certain concrete means which can obtain such result is disclosed in the specification or drawings and it is also recognized that only the said concrete means is substantially disclosed, the scope of the invention is deemed unclear. In such cases, it usually cannot be said that the invention disclosed in the specification or drawings can not be properly identified unless defining the product by the said result to be achieved.

(iii) Where the claim includes the definition of a product by a unique parameter, there are many cases where concrete products which are expressed by the said parameter cannot be conceived. The scope of the invention is deemed unclear except where it is understood that the invention disclosed in the specification or drawings cannot be properly identified unless defining the product by such unique parameter and its relation with the technical standard as of the filing is understood. (For example, where comparison with the known product which has identical or similar effect, or comparison with the known product with similar structure, or comparison with the known product to be manufactured by the similar manufacturing process is shown, etc.).

(7) A claim includes statements defining a product by its manufacturing process so that the scope of the invention is unclear.

①When the claim includes the definition of a product by its manufacturing process (product-by-process claim), there may be cases where the scope of the invention is not necessarily clear and the invention for which a patent is sought cannot be clearly identified as in the case of a claim including the definition of a product by its function, etc.

Where a claim includes statements defining a product by its manufacturing process, if a person skilled in the art can conceive a concrete product to be manufactured by such manufacturing process by taking into consideration the common general knowledge as of the filing, the scope of the invention for which a patent is sought is clear so that the invention can be clearly identified.

On the contrary, when a person skilled in the art cannot conceive a concrete product from the statements in a claim defining the product by its manufacturing process by taking into consideration the common general knowledge as of the filing, since a concrete matters pertaining to the invention for which a patent is sought cannot be understood, the scope of the invention usually cannot be said to be clear.

However, even when a concrete product cannot be conceived, if the invention disclosed in the specification or drawings cannot be properly identified unless defining the product by its manufacturing process, it is not appropriate to determine that the scope of the invention is unclear only on the basis of the ground that a concrete product cannot be conceived. In this case, if the relation between the product to be manufactured by such manufacturing process and the technical standard as of the filing can be understood, the scope of the invention is deemed clear (Refer to (6)①(Note 3)).

②Accordingly, when the claim includes the definition of a product by its manufacturing process, whether or not the scope of the invention is clear should be determined as follows.

When a person skilled in the art can conceive a concrete product from such manufacturing process from the statements in a claim defining the product by taking into consideration the common general knowledge as of the filing (including those which can be recognized to be the common general knowledge as of the filing from the description in the specification or drawings), the scope of the invention is deemed clear.

On the contrary, even when a concrete product to be manufactured by such

manufacturing process cannot be conceived, it cannot be said that the scope of the invention is unclear in the following conditions:

- (i) it is understood that the invention disclosed in the specification or the drawings cannot be defined unless defining the product by its manufacturing process; and
- (ii) the relation between the product to be manufactured by such manufacturing process and the technical standard as of the filing can be understood.

For example, when the relation (difference) between the product to be manufactured by such manufacturing process and known products are shown with the experimental result or theoretical explanation, etc., the relation with the technical standard can be understood.

In cases where either (i) or (ii) is not satisfied, the scope of invention is deemed unclear.

#### **2.2.2.2 Other Matters to be Noted**

In case where a claim directed to a use invention (Refer to Part II : Chapter 2. 1.5.2(2)) explicitly includes a statement to mean a use of a product and the statement does not express a specific use but a general use, it should not be deemed a violation of Section 36(6)(ii) merely because the statement expresses a general use (i.e., merely because the scope of the claim is relatively broad) unless the expression makes unclear the invention for which a patent is sought. (For example, not a “pharmaceutical/agrochemical substance for disease X comprising...” but “a pharmaceutical/ agrochemical substance comprising...”)

The detailed description of the invention, however, shall comply with the provision of Section 36(4).

Where a claim is directed to a composition and does not include any statement to define the use of the composition or the property of the composition, it shall not be deemed a violation of Section 36(6)(ii) merely because the claim does not include any definition by the use or property of the composition.

#### **2.2.3 Patent Law Section 36(6)(iii)**

A claim is to be used for the basis of identifying the claimed invention which is a subject of examination of the patentability requirements such as novelty or inventive step, etc., and the description requirements. A claim also ensures the role of the specification which serves as a document of title defining the technical scope of a patented invention accurately. Therefore, it is adequate that claim statements are concise as well as comply with Section 36(6)(ii) in order for the third parties to understand the claimed invention as easily as possible. This is the purpose of Section 36(6)(iii).

Section 36(6)(iii) does not deal with the inventive concept defined by claim statement but deals with the conciseness of the statement itself. Also, it does not require plural claims as a whole be concise when an application contains two or more claims. Rather, it requires each claim be stated concisely.

##### **2.2.3.1 Typical Examples of Violation of Section 36(6)(iii)**

The typical examples violating Section 36(6)(iii) are shown below.

- (1) A claim includes statements with same contents in such a duplicated manner that it is unduly redundant.

In the light of the purpose of Section 36(5) that a claim shall state the matters an applicant himself/herself deems necessary to define the invention, however, it should be deemed “unduly redundant” only if the duplication is excessive, even where claim statements having the same

contents are included in a claim. It should not be deemed “unduly redundant” merely because a matter defining a claimed invention is an obvious limitation to a person skilled in the art or is a dispensable limitation for meeting the patentability requirements or the description requirements (excluding Section 36(6)(iii)).

When a claim statement is made by a reference to the description in the detailed description of the invention or drawings, the claim statement and the corresponding descriptions in the detailed description of the invention or the drawings should not be redundant as a whole.

(2) A claim is expressed in alternatives (e.g., Markush-type claim for chemical compounds) and the number of alternatives is so large that the conciseness is extremely damaged.

Consideration should be taken into the followings, in determining whether the conciseness is extremely damaged.

① In a case where a significant structural element is not shared by the alternatives, less number of alternatives should be deemed so large that the conciseness is extremely damaged than in a case where a significant structural element is shared by the alternatives.

② In a case where the alternatives are expressed in a complicated way, such as the conditional options, less number of alternatives should be deemed so large that the conciseness is extremely damaged than otherwise.

Even in the case of (2) above, the examiner should choose at least one group of chemical compounds which is expressed as alternatives in the claim and which involves a chemical compound indicated as a working example (“a group of chemical compounds expressed as specific alternatives corresponding to a working example”), and should examine the patentability of those chemical compounds. Regardless of existence or nonexistence of reason for refusal under patentability requirements, the examiner should point out in the notice of reasons for refusal, if any, the group of chemical compounds which (s)he examined on patentability.

#### **2.2.4 Patent Law Section 36(6)(iv)**

This provisions refers the legal requirements regarding technical rules of claim drafting to an ordinance of the Ministry of Economy, Trade and Industry.

Regulations under the Patent Law Section 24<sup>ter</sup>

Statements of the scope of claim under Section 36(6)(iv) of the Patent Law which are to be in accordance with an ordinance of the Ministry of Economy, Trade and Industry shall be as provided in each of the following items:

- (i) for each claim, the statements shall start on a new line with one number being assigned thereto;
- (ii) claims shall be numbered consecutively;
- (iii) in the statements in a claim, reference to other claims shall be made by the numbers assigned thereto;
- (iv) when a claim refers to another claim, the claim shall not precede the other claim to which it refers.

Claims are classified into independent form claims and dependent form claims. Independent form claims are those defined without referring to other claims, while dependent form claims are those which refer to other preceding claims. The two types of claims differ only in the form of description, and are treated in the same manner.

#### **2.2.4.1 Typical Examples of Violation of Section 36(6)(iv)**

- (1) Reference in a dependent form claim is not made to a preceding claim or claims, or
- (2) Reference to other claim or claims is not made by the number assigned to the claim(s) referred to.

Example 1: 1. A ball bearing as defined in claim 2 that is provided with an annular cushion around the outer race.  
2. A ball bearing having a specific structure.  
3. A process for producing the aforementioned ball bearing by use of a specific method.

#### **2.2.4.2 Descriptive Form of Claims - Independent Form or Dependent Form -**

##### **(1) Independent form claims**

It is permissible to define an invention by using an independent form claim regardless of whether or not the invention defined in the independent form claim is identical with the invention defined in any other claim.

##### **(2) Dependent form claims**

###### **① Typical dependent form claims**

Dependent form claims may be utilized to simplify the statements of claims by avoiding repetition of the same expressions and phrases. It is possible to define an invention by use of a dependent form claim regardless of whether or not the invention defined in the dependent form claim is identical with the invention defined in the claims referred to.

In a typical case, a dependent form claim can be used when a claim includes all the features of another preceding claim.

By using the dependent form claims in such cases, repetition of the same expressions can be avoided, while enabling clearer distinction between the dependent form claim and the claim referred to, thus reducing the applicant's workload and at the same time facilitating interpretation of claims by other parties.

Example 1: Typical dependent form claims

1. A building wall material incorporating heat insulator.
2. A building wall material as defined in Claim 1 wherein the heat insulator consists of polystyrene form.

###### **② Dependent form claims other than described above**

Claims may be written in dependent form to simplify the statements of claims by making reference to other claims, when writing claims which substitute a part of the matters defining invention of other preceding claims or when writing claims in a different category from that of other preceding claims, provided that the statements of the claims do not become unclear.

Example 2: Dependent form claim substituting a part of matters defining invention of the claim referred to

1. A transmission of specific construction provided with a gear drive mechanism.
2. A transmission as defined in claim 1 provided with a belt drive mechanism in place of said gear drive mechanism.



Example 3: Dependent form claim referring to another claim expressed in a different category

1. A ball bearing of specific construction.
2. A process for producing the ball bearing as defined in claim 1 by use of a specific method.

Example 4: Dependent form claim referring to a sub-combination

1. A bolt with a male thread of specific configuration.
2. A nut with a female thread of certain configuration that matches the bolt as defined in claim 1.

(Note) A “sub-combination” refers to each device or step of the “combination” thereof while a “combination” refers to an invention of a whole device combining two or more devices or of a manufacturing process combining two or more steps.

### ③ Multiple dependent form claim

Multiple dependent form claims are claims defined by making reference to two or more claims (regardless of independent or dependent), and are utilized in simplifying the statements of the claim.

Claims of this form have advantage over the case claiming separately plural simple dependent form claims, in terms of the workload and fees, but also have such disadvantages as being subject to abandonment, opposition or invalidation collectively as a package. The choice between the simple dependent form claims and the multiple dependent form claims should therefore be made by weighing the merits and demerits of the respective claiming practice, and is left to the applicant's discretion.

In the light of conciseness and clearness, multiple dependent form claims preferably refer to two or more claims in alternative form, and impose an identical technical limitation on the respective claims referred to. (See Note 14d of Form 29, Regulations under Patent Law, and Note 11d of Form 14, Regulations under Special Treatment Law.)

Example 5: Multiple dependent form claims

1. An air conditioner of specific construction.
2. An air conditioner as defined in claim 1 provided with a wind direction regulating means.
3. An air conditioner as defined in claim 1 or 2 provided with a flow regulating means.

Claiming in multiple dependent form is allowed in the following case because the claim statement is concise and the claimed invention is clear, even though reference is made to two or more claims in non-alternative form, and an identical technical limitation is not imposed on the respective claims referred to.

Example 6:

1. A bolt provided with a male thread of specific configuration.
2. A nut provided with a female thread of specific configuration.
3. A fastening apparatus comprising the bolt as defined in claim 1 and the nut as defined in claim 2.

(3) Relation between Regulations under the Patent Law on descriptive form of claims and the reason for refusal.

If a multiple dependent form claim refers to two or more claims in non-alternative form or if

it does not impose an identical technical limitation on the respective claims referred to, it does not comply with the instruction on claiming practice which is provided in Note 14d of Form 29 of Regulations under Patent Law. This instruction, however, is not one of the legal requirements provided in the law as a basis of a decision of refusal. Therefore, mere non-compliance with the instruction does not constitute a reason for refusal of an application (See Example 3). On the other hand, such a case as Example 1 or 2 should be determined as violating Section 36(6)(ii) because it makes a claimed invention unclear.

Example 1: The claimed invention becomes unclear due to non-alternative reference to other claims. (Violation of 2.2.2.1(1))

1. An air conditioner with specific construction.
2. An air conditioner as defined in claim 1 provided with a wind direction regulating means.
3. An air conditioner as defined in claims 1 and 2 provided with a flow regulating means.

Example 2: The category of the claimed invention becomes unclear due to the reference being made to claims of different subjects (categories), although an identical technical limitation is imposed on the claims referred to. (Violation of 2.2.2.1(3))

1. An artificial heart with specific structure.
2. A process for producing an artificial heart of specific construction, comprising specific methods.
3. An artificial heart as defined in claim 1 provided with a safety device, or a process for producing the artificial heart as defined in claim 2 provided with a safety device.

Example 3: Although not complying with the instructions in the note of Regulation in that an identical technical limitation is not imposed on the respective claims referred to, the alternatives in the claim have a similar nature and it does not violate 2.2.2.1(4).

1. An air conditioner with specific structure.
  2. An air conditioner as defined in claim 1 provided with a wind direction regulating means.
  3. An air conditioner as defined in claim 1 provided with a flow regulating means, or air conditioner as defined in claim 2 provided with a timer means.
- (Suppose that the “specific structure” is novel and corresponds to a technical problem to be solved which each alternative of claim 3 has in common, i.e., it is “substantial part of matters to define the invention” of claim 3.)

## **2.2.5 Notice of Reason for Refusal on Violation of Section 36(6)**

(1) When notifying the reason for refusal on the ground of violation of Section 36(6), the examiner should identify the claim violating the provision and the Item (i.e., any of (i) to (iv) of Section 36(6)) constituting the ground of a decision of refusal, and should state the reason thereof along with pointing out the particular portion of the specification and drawings which (s)he deems as the basis of the judgement.

(2) An applicant may make an argument or clarification against the notice of reason for refusal by submitting written arguments or certificates of experimental result, etc. Where the applicant's arguments are confirmed to be adequate by examining the submitted evidence, the reasons for refusal shall be deemed overcome. Where the applicant's argument does not

change the examiner's conviction at all or where it succeeds in denying the examiner's conviction only to the extent that truth or falsity becomes unclear, the examiner makes a decision of refusal on the ground which is earlier notified by the notice of reason for refusal.

(Note) For example, the applicants may explain that the words described in the claim which were judged not to be understood by the examiner could be included in the common general knowledge. When the claim includes the product that is defined by unique parameters, the applicants may explain the relation between that product and the technical standard as of the filing by showing the comparison with the publicly known products which have identical or similar effect.

### **3. Description Requirements of the Detailed Description of the Invention**

#### **3.1 Patent Law Section 36(4)**

Patent Law Section 36(4)

The detailed description of the invention under the preceding Subsection (iii) shall state the invention, as provided for in an ordinance of the Ministry of Economy, Trade and Industry, in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art to which the invention pertains.

Regulations under the Patent Law Section 24<sup>bis</sup> (Ministerial Ordinance)

Statements of the detailed description of the invention which are to be in accordance with an ordinance of the Ministry of Economy, Trade and Industry under Section 36(4) shall state the problem to be solved by the invention and its solution, or other matters necessary for a person having ordinary skill in the art to understand the technical significance of the invention.

#### **3.2 Enablement Requirement**

“The detailed description of the invention under the preceding Subsection (iii) shall state the invention...in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art to which the invention pertains.” (Section 36(4)).

(1) This provision means that the detailed description of the invention shall be described in such a manner that a person who has ability to use ordinary technical means for research and development (including comprehension of document, experimentation, analysis and manufacture) and to exercise ordinary creativity in the art (a person skilled in the art) to which the invention pertains can carry out the claimed invention on the basis of matters described in the specification (excluding claims) and drawings taking into consideration the common general knowledge as of the filing (hereinafter referred to “enablement requirement”).

(2) Therefore, if “a person skilled in the art” who is supposed to have ordinary skill cannot understand how to carry out the invention on the basis of teachings in the specification (excluding claims) and drawings taking into consideration the common general knowledge as of the filing, then, such a description of the invention should be deemed insufficient for enabling such a person to carry out the invention. For example, if a large amount of trials and errors or complicated experimentation are needed to find a way to carry out the invention beyond the reasonable extent that can be expected from a person skilled in the art, such a description should not be deemed sufficient.

(3) “To be carried out” in Section 36(4) is interpreted as meaning that “the claimed invention can be carried out.” Therefore, the detailed description of the invention must be described in such a manner sufficiently clear and complete for a person skilled in the art to carry out the

claimed invention i.e., “an invention identified based on the claim statements according to the handling shown in 1.5.1 of Chapter 2.”

However, it is not a violation of Section 36(4) that inventions, which are not claimed, are not described sufficiently to meet the enablement requirement, or those extra matters, which are unnecessary for carrying out the claimed invention, are described.

Where the descriptions supporting two or more claimed inventions would overlap, such overlapped descriptions may be omitted, provided that their relation to the claims remains clear.

(4) “To be carried out” in the provision implies being able to make and use the product in the case of an invention of a product, being able to use the process in the case of an invention of a process and being able to make a product by the process in the case of an invention of a process for manufacturing a product.

### **3.2.1 Practices in Enablement Requirement**

#### **(1) Mode for carrying out the invention**

It is necessary to describe in the detailed description of the invention at least one mode that an applicant considers to be the best among the “modes for carrying out the invention” showing how to carry out the claimed invention in compliance with the requirements in Section 36(4).

(Note) The “mode for carrying out the invention” referred to in this Guideline is the same as prescribed in the Regulation 5.1-(a)( v ) under PCT (Patent Cooperation Treaty). Hereinafter it is referred to as the “mode for carrying out.”

#### **(2) “Mode for carrying out the invention” in the case of an invention of a product**

For an invention of a product, the definition of carrying out the invention is to make and use the product as mentioned above. Therefore, a “mode for carrying out the invention” for an invention of a product also needs to be described so as to enable a person skilled in the art to make and use the product.

##### **① “Invention of a product” is clearly explained**

If an invention of a product can be recognized by a person skilled in the art based on the claim statements (i.e., the claimed invention can be identified) and can be understood from the description in the detailed description of the invention.

In the case of an invention of a chemical compound, for instance, the invention should be deemed as clearly explained if the chemical compound is expressed either by name or by chemical structural formula.

A matter defining an invention of a product stated in a claim and a corresponding description in the detailed description of the invention should be consistent with each other in such a manner that the claimed invention can be understood as a whole from the detailed description of the invention.

##### **② “Can be made”**

For an invention of a product, the description shall be stated so as to enable a person skilled in the art to make the product. For that purpose, the manufacturing method must be concretely described, except the case where a person skilled in the art can manufacture the product based on the description in the specification and the drawings, and the common general technical knowledge as of the filing.

Where a claim includes statements defining a product by its function or characteristics, etc. and where such function or characteristics, etc. are neither standard nor commonly

used by a person skilled in the art, the detailed description of the invention shall state the definition of such function or characteristics, etc. or the method for testing or measuring such function or characteristics, etc. in order for the claimed invention to satisfy the enablement requirement for the claimed invention.

In the technical field where it is difficult to predict the structure, etc. of a product from the function or characteristic, etc. of the product (e.g. chemical substances), unless a person skilled in the art cannot understand how to make another product defined by its function or characteristic, etc. other than products of which manufacturing method is concretely described in the detailed description of the invention (or those which can be made from these products taking into consideration the common general knowledge), the description of the detailed description of the invention is violating the enablement requirement (For example, where a large amount of trials and errors or complicated experimentation are needed to find a way to carry out the invention beyond the reasonable extent that can be expected from a person skilled in the art.)

Example violating the enablement requirement:

R-acceptor activating compounds obtained by a specific screening method.

There are no descriptions as to chemical structures or manufacturing methods of R-receptor compounds other than the newly obtained X, Y, and Z disclosed as working examples, and there is no other clue to infer the chemical structure, etc.

Also, it is required to describe how each matter defining the invention of the product works (role of each matter) (namely, “operation” of each matter) if a person skilled in the art needs it for manufacturing the product of an invention.

On the other hand, when a person skilled in the art can manufacture the product from the statements on the structure shown as a working example or from the common general knowledge as of the filing, it does not constitute violation of the enablement requirement even though there is no statement as to manufacturing method thereof.

### ③ “Can be used”

For an invention of a product, the description shall be stated in the detailed description of the invention so as to enable a person skilled in the art to use the product (Note). To meet this, the way of using the product shall be concretely described except where the product could be used by a person skilled in the art without such explicit description when taking into account the overall descriptions of the specification (excluding claims), drawings and the common general knowledge as of the filing.

For example, in the case of the invention of a chemical compound, it is necessary to describe more than one specific use with technical significance in order to show that the chemical compound concerned can be used.

Also, it is required to describe how each matter defining the invention of the product works (role of each matter) (namely, “operation” of each matter) if a person skilled in the art needs it for using the product of an invention.

On the other hand, the usage of the product need not be explicitly described in the detailed description of the invention where a person skilled in the art can use it by taking into account, for example, descriptions for the structure of the invention disclosed as a working example or the common general knowledge as of the filing.

(Note) Examination Guidelines treats the industrially inapplicable inventions under the first

sentence of Section 29(1) in a different fashion from those violating the enablement requirement of Section 36(4). The former is relatively restricted. Such an invention as a method for treatment of human body is in the list of exhaustive nature, and those inventions out of the limited list are treated as industrially applicable.

(3) “Mode for carrying out the invention” in the case of an invention of a process

For an invention of a process, the definition of carrying out the invention is to use the process as mentioned above. Therefore, a “mode for carrying out the invention” for an invention of a process also needs to be described so as to enable a person skilled in the art to use the process.

① “Invention of a process” is clearly explained

If an invention of a process can be recognized by a person skilled in the art based on the claim statements (i.e., a claimed invention can be identified) and can be understood from the description in the detailed description of the invention, the invention is deemed as being clearly explained.

② “Process can be used “

There are various types of process inventions other than those for manufacturing a product (so-called “pure process”) such as a process of using a product, a process for measuring or process for controlling, etc. For any type of process inventions, the description of the invention shall be stated so as to enable a person skilled in the art to use the process by taking into account the overall descriptions of the specification (excluding claims), drawings and the common general knowledge as of the filing.

(4) “Mode for carrying out the invention” in the case of an invention of a process for manufacturing a product

Where an invention of a process is directed to “a process for manufacturing a product,” the definition of “the process can be used” means that the product can be manufactured by the process. Therefore, a “mode for carrying out the invention” for an invention of a process for manufacturing a product also needs to be described so as to enable a person skilled in the art to manufacture the product.

① “Invention of a process for manufacturing a product” is clearly explained

If an invention of a process for manufacturing a product can be recognized by a person skilled in the art based on the claim statements (i.e., a claimed invention can be identified) and can be understood from the description in the detailed description of the invention, the invention is deemed as clearly explained.

② “Product can be manufactured by the process”

For an invention of a process for manufacturing a product, various types exist including a process for producing goods, a process for assembling a product, a method for processing a material, etc. Any of these consists of such three factors as i) materials, ii) process steps and iii) final products. For an invention of a process for manufacturing a product, the description shall be stated so as to enable a person skilled in the art to manufacture the product by using the process. Thus, these three factors shall in principle be described in such a manner that a person skilled in the art can manufacture the product when taking into account the overall descriptions of the specification (excluding claims), drawings and the common general knowledge as of the filing.

Of these three factors, however, the final products may be understood from descriptions of materials and process steps. (For instance, a process for assembling a simple device where structures of parts are not subject to any change during the process steps.) In such

a case, descriptions on the final products may be omitted.

(5) How specifically the detailed description of the invention must be described?

When embodiments or working examples are necessary in order to explain the invention in such a way that a person skilled in the art can carry out the invention, "the mode for carrying out the invention" should be described in terms of embodiments or working examples. The explanation should be done by citing drawings, if any. Embodiments or working examples specifically show the mode for carrying out the invention. (Regarding an invention of a product, for instance, those, which specifically show how to make it, what structure it has, how to use it, etc.)

In cases where it is possible to explain the invention so as to enable a person skilled in the art to carry out the invention, neither embodiments nor working examples are necessary.

Where an invention of a product is not defined by such specific means as its structure but defined by its function, character, etc., a specific means which is capable of performing the function or character shall be explicitly described in the detailed description of the invention, except where it could be understood by a person skilled in the art without such explicit descriptions taking into account the overall descriptions of the specification (excluding claims), drawings and the common general knowledge as of the filing.

In the case of inventions in technical fields where it is generally difficult to infer how to make and use a product on the basis of its structure (e.g., chemical substances), normally one or more representative embodiments or working examples are necessary which enable a person skilled in the art to carry out the invention. Also, in the case of use inventions (e.g., medicine) using the character of a product etc., the working examples supporting the use are usually required.

(6) Relation between statements in the claim and description in the detailed description of the invention

① As mentioned in (1) above, at least one mode for carrying out the invention needs to be described in terms of "claimed invention." For not all embodiments nor all alternatives within the extent of the claimed invention, the mode for carrying out the invention needs to be described.

However, when the examiner can show well-founded reasons that a person skilled in the art would be unable to extend the particular mode for carrying out the invention in the detailed description of the invention to the whole of the field within the extent of the claimed invention, the examiner should determine that the claimed invention is not described in such a manner sufficiently clear and complete to be carried out by a person skilled in the art.

② For example, if a claim is directed to a generic concept with only a mode for carrying out a more specific concept being described in the detailed description of the invention, and if there is a concrete reason that the description of the mode for carrying out the specific concept does not make another specific concept (\*) covered by the claimed generic concept to be carried out by a person skilled in the art even taking into consideration the common general knowledge as of the filing, then, such descriptions of the particular mode should not be deemed sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art.

(\*): "Another specific concept" must be one that a person skilled in the art can recognize as of the filing. The same will apply hereinafter in 3.2.1 to 3.2.3.

③ If a claim is defined in an alternative way by Markush-type formula with only a mode for

carrying out a part of the claimed alternatives being described in the detailed description of the invention, and if there is a concrete reason that the descriptions of the mode for carrying out the part of alternatives does not make the rest of the alternatives to be carried out by a person skilled in the art even taking into consideration the common general knowledge as of the filing, then, such descriptions of the particular mode should not be deemed sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art.

④ If claim statements defining the product by a result to be achieved, it should be noted that such a claim may be so broad that a person skilled in the art would be unable to extend the particular mode for carrying out the invention in the detailed description of the invention to the whole of the field within the extent of the claimed invention.

### **3.2.2 Types of Violation of Enablement Requirement**

#### **3.2.2.1 Improper Description of Modes for Carrying Out the Invention**

(1) A person skilled in the art cannot carry out the claimed invention because a technical means corresponding to a matter defining the claimed invention is described in a merely functional or abstract way in the mode for carrying out the invention and in such a manner that it is unclear and incomprehensible how the technical means should be embodied into a material, apparatus or process, even taking into consideration the common general knowledge as of the filing.

(2) A person skilled in the art cannot carry out the claimed invention because the relation between each technical means corresponding to a matter defining the claimed invention is unclear and incomprehensible in the mode for carrying out the invention, even taking into consideration the common general knowledge as of the filing.

(3) A person skilled in the art cannot carry out the invention because specific numerical values such as manufacturing conditions are neither described in the mode for carrying out the invention nor can be understood by a person skilled in the art when taking into consideration the common general knowledge as of the filing.

#### **3.2.2.2 Part of Claim Not Supported by the Mode for Carrying Out the Invention**

(1) A claim is directed to a generic concept with only a more specific concept of the generic concept being described enablingly in the detailed description of the invention, and there is a concrete reason that the description of the mode for carrying out the specific concept does not make another specific concept covered by the claim to be carried out by a person skilled in the art, even taking into consideration the common general knowledge as of the filing. (Note that methods of experimentation and analysis may be among the common general knowledge as of the filing.)

Example: A claim is directed to a process for manufacturing a molded plastics consisting of the first step to form the plastics and the second step to correct strain of the formed plastics. The detailed description of the invention discloses, as a working example, only a process wherein the plastics being thermoplastic resin is formed by an extrusion molding and then the strain is corrected by heat-softening the molded plastics. The process for the strain correction by heat softening seems inappropriate for the case where the plastics being thermosetting resin. (A rational reasoning can be made that the strain-correction of the working example is inappropriate for thermosetting resin in view of the fact that thermosetting resin can not be soften by



heating which is generally accepted as scientifically or technically correct.)

(2) A claim is defined in an alternative way by Markush-type formula with only a mode for carrying out a part of the claimed alternatives being described enablingly in the detailed description of the invention, and there is a concrete reason that the description of the mode for carrying out the part of the alternatives does not make the rest of the alternatives to be carried out by a person skilled in the art, even taking into consideration the common general knowledge as of the filing. (Note that methods of experimentation and analysis may be among the common general knowledge as of the filing.)

Example: A claim is directed to a process for manufacturing para-nitro substituted benzene by nitrating the substituted benzene where the substituent group (X) is CH<sub>3</sub>, OH, or COOH. The detailed description of the invention discloses, as a working example, only a case where the starting material being toluene (i.e., a case where X being CH<sub>3</sub>). A rational reasoning can be made that such a process is inappropriate when the starting material is benzoic acid (i.e., when X is COOH) in view of very large difference in the orientation between CH<sub>3</sub> and COOH.

(3) A mode for carrying out the invention is described enablingly in the detailed description of the invention. For example, however, the particular mode is idiosyncratic within the extent of the claimed invention, and therefore, there is a well-founded reason that a person skilled in the art would be unable to extend the particular mode for carrying out the invention to the whole of the field within the extent of the claimed invention, even taking into consideration the common general knowledge as of the filing. (Note that methods of experimentation and analysis may be among the common general knowledge as of the filing.)

Example: A claim is directed to “a lens system for a single-lens reflex camera consisting of three lenses, wherein the lenses are placed in order of a positive, a negative and a positive lens from the object side to the film side, wherein optical aberration of the lens system is corrected so as to be less than X % in image height H.” The detailed description of the invention discloses, as a mode for carrying out the invention, an example of specific combination of refractive indices of three lenses, or in addition, a specific conditional formula for them so that the particular optical aberration can be done.

In the filed of optical lenses, it is generally accepted as scientifically or technically correct that an example of specific combination of refractive indices which can embody a particular optical aberration is of idiosyncratic nature. In addition, that particular disclosure such as the example of refractive indices or conditional formula does not teach any generalized conditions for manufacturing the corrected lens system. Thus, a rational reasoning can be made that a person skilled in the art would be unable to understand how to extend the particular mode for carrying out the invention to the whole of the field within the extent of the claimed invention even taking into consideration the methods of experimentation, analysis and manufacture which are generally known to a person skilled in the art as of the filing.

(4) A claim includes the product defined by the result to be achieved and only the specific working mode is described in the detailed description of the invention so as to be carried out, and therefore, there is a well-founded reason that a person skilled in the art would be unable to extend the particular mode for carrying out the invention to the whole of the field within the extent of the claimed invention, even taking into consideration the common general knowledge as of the filing. (Note that methods of experimentation and analysis may be among the

common general knowledge as of the filing.)

Example: “A hybrid car of which energy efficiency during traveling by electricity is a – b%” is stated in the claims. And only a hybrid car equipped with specific power transmission control means to obtain the energy efficiency concerned is described in the detailed description of the invention as a working mode.

And in the technical field of the hybrid car, normally, the fact that the aforesaid energy efficiency is about X% which is far lower than a% and it is difficult to realize higher energy efficiency such as a – b%, is the common general technical knowledge as of the filing. In addition, the description on the hybrid car equipped with aforesaid specific power transmission control means do not show the common solving means for realizing the aforesaid high energy efficiency. Accordingly, the rational reason can be made that a person skilled in the art cannot understand another hybrid car which brings the aforesaid result described in the claim even though taking into consideration the common art in the relevant technical field.

### **3.2.3 Notice of Reason for Refusal Violating Enablement Requirement**

(1) Where the examiner makes a notice of reason for refusal on the ground of violation of enablement requirement under Section 36(4), (s)he shall identify the claim which violates the requirement, make clear that the ground of refusal is not a violation of Ministerial Ordinance requirement but a violation of enablement requirement under Section 36(4), and point out particular descriptions, if any, which mainly constitute the violation. When sending a notice of reason for refusal, the examiner should specifically point out a concrete reason why the application violates the enablement requirement.

The reason above should be supported by reference documents. Such documents are, in principle, limited to those that are known to a person skilled in the art as of the filing. However, specifications of later applications, certificates of experimental result, written oppositions to the grant of a patent, and written arguments submitted by the applicant for another application etc. can be referred to for the purpose of pointing out that the violation stems from the descriptions in the specification and drawings being inconsistent with a fact generally accepted as scientifically or technically correct by a person skilled in the art.

(2) Against the notice of reason for refusal, an applicant may argue or clarify by putting forth written arguments or experimental results, etc (Note). Where the applicant's argument is confirmed to be adequate by examining the submitted evidence, the reason for refusal shall be deemed overcome. Where the applicant's argument does not change the examiner's conviction at all or where it succeeds in denying the examiner's conviction only to the extent that truth or falsity becomes unclear, the examiner makes a decision of refusal on the ground of the notice of reasons for refusal which is earlier notified.

(Note) For example, through a written opinion or a certified experiment result, etc., the applicant may clarify that the experiment or the method of analysis not considered by the examiner is actually pertaining to the common general knowledge as of the filing, and that a person skilled in the art can carry out the claimed invention based on such an experiment or method for analysis as well as the description in the specification and the drawings.

## **3.3 Ministerial Ordinance Requirements**

### **3.3.1 Ministerial Ordinance under Section 36(4)**

“The detailed description of the invention under the preceding Subsection (iii) shall state

the invention, as provided for in an ordinance of the Ministry of Economy, Trade and Industry, in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art to which the invention pertains.” (Section 36(4)).

“Statements of the detailed description of the invention which are to be in accordance with an ordinance of the Ministry of Economy, Trade and Industry under Section 36(4) shall state the problem to be solved by the invention and its solution, or other matters necessary for a person having ordinary skill in the art to understand the technical significance of the invention.” (Section 24<sup>bis</sup> of Regulation under Patent Law)

#### (1) Purpose of the Ministerial Ordinance

Since an invention is a creation of new technical idea, it is important that a patent application is described so as to make a person skilled in the art to understand the technical significance of the invention (i.e., the technical contribution which the invention brought up) against the state of the art as of the filing. A conventional way of description in the detailed description of the invention is what is an unsolved problem, in which technical field such a problem resides, and how such a problem has been solved by the invention. This way of description is convenient, as well, for understanding the technical significance of the invention.

One who wishes to obtain a hint for research and development from patent documents or to utilize useful patented invention can easily conduct a search of patent documents by paying attention to the technical problems described in the patent documents.

In determining inventive step of an invention under Section 29(2), a prior art document showing a technical problem common to the invention in question can be a ground for a decision of refusal. Therefore, judgement of inventive step is easier for applicants and third parties if both a patent application under examination and a prior art document contain descriptions of technical problems to be solved.

For these reasons, Section 24<sup>bis</sup> of the Regulation under Patent Law (Ministerial Ordinance) requires to state in the detailed description of the invention “matters necessary to understand the technical significance of the invention,” and exemplifies such matters as the problem to be solved and its solution.

### 3.3.2 Practical Application of Ministerial Ordinance Requirements

(1) In the light of above-mentioned purposes, matters required under the Ministerial Ordinance shall be deemed as the followings in practice.

#### ① Technical field to which an invention pertains

As “technical field to which an invention pertains,” at least one technical field to which a claimed invention pertains shall be stated in a specification.

However, the “technical field to which an invention pertains” is not required to be explicitly stated if a person skilled in the art can understand it without such explicit statements when looking into overall descriptions in the specification (excluding claims) and drawings taking into consideration the common general knowledge as of the filing. This is because strictly applying the requirement to such a case would rather result in redundant descriptions.

Further, in cases where an invention is deemed not to pertain to existing technical fields like an invention developed based on an entirely new conception which is completely different from prior art, an application for such an invention need not to state existing technical fields, and statements of the new technical field developed by the

invention suffices the requirement.

② Problem to be solved by the invention and its solution

- i) As “problem to be solved by the invention,” an application shall state at least one technical problem to be solved by a claimed invention.

As “its solution,” an application shall explain how the technical problem has been solved by the claimed invention.

- ii) However, the “problem to be solved by the invention” is not required to be explicitly stated if a person skilled in the art can understand it without such an explicit statement, when looking into overall descriptions in the specification (excluding claims) and drawings including statements of prior art or advantageous effects of the invention, taking into consideration the common general knowledge as of the filing. (Note that a person skilled in the art could comprehend the technical problem when considering prior art which falls within the common general knowledge as of the filing.) Also, in cases where a person skilled in the art would understand how a technical problem has been solved by a claimed invention by examining the claimed invention in the light of the technical problem which has been found in above-mentioned way, and taking into consideration the descriptions of a working example, an application for such an invention is not required an explicit statement of problem-solution form.
- iii) Further, in cases where an invention is deemed not based upon recognition of a problem to be solved like an invention developed based on an entirely new conception which is completely different from prior art or an invention which is based on a fortuitous discovery resulting from trials and errors (e.g., chemical substances), an application for such an invention is not required to state a problem to be solved. This is because requiring such an application to state a problem to be solved would force it to state a non-intended problem to be solved, and would rather result in hampering correct understanding of technical significance of the invention or result in damaging conciseness of the description of the specification.

It is in connection with “a problem to be solved by the invention” that “its solution” is meaningful. In another word, if one does not recognize a problem, one cannot recognize how an invention has solved a problem. (As opposed to this, if one can once recognize a problem, one might recognize how an invention has solved the problem.) Therefore, in cases where an invention is deemed not based upon recognition of a problem to be solved as mentioned above, an application for such an invention is not required to state how the invention has solved a problem (i.e., statements of solution). (It is needless to say, however, that even such an application is required sufficient disclosure meeting the enablement requirement.)

Note: Where descriptions of a technical field, a problem to be solved and its solution for two or more claims would overlap, such overlapped descriptions may be omitted, provided that the relation of each claim remains clear.

- (2) The enablement requirement ensures an applicant to disclose to the public how to carry out the invention in return for granting a patent. Therefore, to grant a patent to an application dissatisfying the requirement would lead to an extreme imbalance between a patentee and the public.

The Ministerial Ordinance requirement, on the other hand, aims at clarifying the technical significance of an invention, and thereby, contributes to patent examinations and searches.

Accordingly, the requirements should be treated as follows.

- 1) Where an invention is determined the one which, if being required to state a problem to be solved, would rather result in hampering correct understanding of technical significance of the invention as mentioned in (1) above, a patent application for such an invention may omit statements of a problem to be solved and its solution. Also, where an invention is determined that it would not pertain to existing technical fields, a patent application for such an invention is deemed to meet the requirement by stating the new technical field to which the claimed invention pertains.
- 2) A patent application for an invention not falling in 1) is deemed to violate the requirement when a person skilled in the art cannot understand the technical field to which the invention pertains, the problem to be solved by the invention and its solution even by looking into overall descriptions in the specification (excluding claims) and drawings, taking into consideration the common general knowledge as of the filing.

Also, the application which includes a unique parameter in matters defining the invention and does not show the comparison with the prior art sufficiently shall be fallen under the category of application that a person skilled in the art cannot understand the problems and the solving means in 2) above.

### (3) Prior art and advantageous effect

#### 1) Prior art

Descriptions of prior art are not required under the Ministerial Ordinance requirement. However, an applicant should describe background prior art, as far as (s)he knows, which is deemed to contribute to understanding the technical significance of the claimed invention and examination of patentability of the claimed invention because such descriptions of prior art could teach the problem to be solved and could substitute the descriptions of the problems. Also, documents related to prior art are one of the important means for evaluating the patentability of the claimed invention. Therefore, when there exist any documents relevant to the claimed invention, it is strongly recommended to cite such documents.

#### 2) Advantageous effects over prior art

It is not required under the Ministerial ordinance requirement to state an advantageous effect of a claimed invention over the relevant prior art. However, it is an applicant's advantage to describe an advantageous effect of a claimed invention over the relevant prior art because such advantageous effect, if any, is taken into consideration as a fact to support to affirmatively infer the existence of inventive step (Refer to Part II, Chapter 2. Section 2.5(3)). Also, descriptions of advantageous effects could teach the problem to be solved and could substitute the descriptions of the problem to be solved. Therefore, an applicant should describe an advantageous effect of a claimed invention over the relevant prior art, if any, as far as (s)he knows.

### **3.3.3 Notice of Reason for Refusal on Violation of Ministerial Ordinance Requirements**

(1) Where the examiner gets convinced that it is more probable than not that an application constitutes a violation of Ministerial Ordinance requirement, (s)he shall make a notice of reasons for refusal stating to the effect that the ground of a decision of refusal is a violation of the Ministerial Ordinance requirement under Section 36(4) together with pointing out which of the matters necessary to understand the technical significance of the invention is defective.

(2) Against the notice of reasons for refusal, an applicant may argue that a person skilled in the art could have understood the technical field of the claimed invention, the problem to be solved and its solution when looking into overall descriptions of the specification (excluding claims), drawings and the common general knowledge as of the filing. This rebuttal may be made by means of submission of written arguments or of amendments introducing no new matter, etc. aiming at clarifying relevant prior art as of the filing which the examiner would not have recognized, provided that the relevant prior art is among the common general knowledge such as well-known or commonly used art.

Where the applicant's argument is confirmed to be adequate by examining the submitted evidence, the reasons for refusal shall be deemed overcome. Where the applicant's argument does not change the examiner's conviction at all or where it succeeds in denying the examiner's conviction only to the extent that truth or falsity becomes unclear, the examiner makes a decision of refusal on the ground of the notice of reasons for refusal which is earlier notified.

#### **4. Improper Descriptions of the Specification in General**

The requirements under Patent Law Section 36(4) or (6) are not met in the following cases if the detailed description of the invention is not described in such a manner sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art or if an invention for which a patent is sought is unclear because the matters stated in the claim cannot be accurately understood by such a person. (Whether or not an application violates the requirements is determined on a case-by-case basis by above-mentioned handling.)

(1) Content of the detailed description of the invention or of the claim is unclear because they are not accurately described in the Japanese language (including improper translation).

This includes the followings: unclear relation between the subject and the predicate, unclear relation between the modifier and the modified word, errors in punctuation, errors in characters (wrong character, omitted character, false substitute character), and errors in sign.

(2) Terms are not used consistently throughout the whole specification.

(3) A term used in the specification is neither an academic term nor a technical term that is commonly used in academic or technical documents and has no definition in the detailed description of the invention.

(4) Trademarks are used for what can be indicated otherwise.

(5) The amount or extent of a state of things or phenomena is not described in a specification by use of units provided for by the Measurement Standards Law.

(6) The brief description of the drawings (explanation of the drawings and marks) is defective in relation to the detailed description of the invention, claims, or drawings.