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**CURRENT STANDARDS FOR PRIOR ART DISCLOSURE IN
ASSESSING NOVELTY AND INVENTIVE STEP REQUIREMENTS**

REPORT FOR SINGAPORE NATIONAL GROUP

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SINGAPORE

Report on Q. 167 by the Singapore Group

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CURRENT STANDARDS FOR PRIOR ART DISCLOSURE IN ASSESSING NOVELTY AND INVENTIVE STEP REQUIREMENTS

The current standards for prior art disclosure in assessing novelty and inventive step are not dissimilar to the standards in the United Kingdom.

Anticipation (Novelty)

1. Under section 13 Patents Act (cap. 221), a patentable invention is one which satisfies the following conditions:
 - a. the invention is new;
 - b. it involves an inventive step; and
 - c. it is capable of industrial application.
2. The requirements of novelty, inventive step and sufficiency of disclosure are distinct concepts and have to be considered separately.
3. Section 14 Patents Act (cap. 221) states that an invention shall be taken as **new** if it does not form **part of the state of the art**.

Section 15 states that an invention shall be taken to involve an **inventive step** if it is **not obvious to a person skilled in the art**, having regard to

any matter which forms part of the state of art under Section 14(2) and without having regard to Section 14(3).

4. [Q1.1]

- 4.1 Prior art can invalidate a patent application or a registered patent – see above. The burden of proof for anticipation and lack of inventive step is placed on the person seeking to invalidate the patent.
- 4.2 The state of the art is defined in Section 14(2) as comprising all matter which has at any time before the priority date been **made available to the public**, by written or oral description, by use or in any other way. Note that this definition of prior art is applicable to the requirement of inventive step.
- 4.3 Prior art includes matters contained in an application for a patent which was published on or after the priority date. Priority date of an invention is the date of filing of the application of the patent, or the declared priority date for a patent application provided it is based on an application filed not more than 12 months prior to the filing of the Singapore application.
- 4.4 For the purposes of assessing novelty only, Section 14(3) provides that the state of the art is also taken to comprise matter contained in an application for another patent¹ which was published on or after the priority date of that invention if :-
- (a) that matter was contained in the application for that other patent both as filed and as published; and

¹ A patent is defined as a patent under the Singapore Patents Act.

- (b) the priority date of that matter is earlier than that of the invention.

To this extent, pending applications which are not yet published may affect novelty. As stated above, Section 14(3) is excluded from consideration for inventive step.

- 4.5 For inventive step, the state of the art described in paragraph 4.4 above is specifically excluded and should not be regarded.

5. [Q1.2 & 1.3]

- 5.1 The definition of prior art is fairly broad, basically encompassing all matter made available at any time before the priority date, whether in writing or orally, domestic or abroad, in use or otherwise, save matters made available in confidence (see below) and certain statutory exceptions.

novelty

- 5.2 In relation to novelty, for information made available to the public, the disclosure must be sufficient to enable a person skilled in the art to put the innovation into practice, applying the common general knowledge of his craft. In the case of a product, it must enable the skilled man to make it; for a process, it must enable him to operate it. A person skilled in the art is a man of ordinary competence in the field but who is not of an imaginative or inventive turn of mind.
- 5.3 In determining if a piece of prior art has indeed anticipated the patent claims, the principle set out in the well-known UK case of **General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd [1972] RPC 457** has been applied in Singapore. The Court of

Appeal in that case held that to determine whether a patentee's claim has been anticipated by prior art, it is necessary to compare the earlier publication with the patentee's claim. Both the prior art and patentee's claims must be interpreted as at the date of its publication, having regard to the relevant surrounding circumstances and without regard to subsequent events (ie the benefit of hindsight). If the prior art so construed discloses the same product or process that the patentee by his claim asserts he has invented or contains "clear and unmistakable directions" to the invention, the claims has been anticipated.

5.4 Two recent cases² re-established two other fundamental principles governing novelty.

- a. 'Mosaicing' of the prior art in assessing novelty is not permissible. As a general rule, prior art documents should be read individually, to determine what information each contained. The exception to this rule is where a later document referred to an earlier document or where a series of papers, which formed a series of disclosures, referred to each other.
- b. When determining whether an invention covered by the patent has been anticipated by each disclosure in the prior art, the question to ask is: does following the teachings in that disclosure inevitably lead to the invention? If the answer is 'yes', the invention is not novel. Modifications made to prior art to lead to the invention will be discounted.

inventive step

² Merck & Co Inc v Pharmaforte Singapore Pte Ltd [2000] 3 SLR 717; Genelabs Diagnostics Pte Ltd v Institut Pasteur & anor [2001] 1 SLR 121

5.5 When determining the issue of inventive step, the courts approach the question by reference to the principles laid down in the UK case of **Windsurfing International v Tabur Marine [1985] RPC 59**.

This approach entails four steps:

- a. Identify the inventive concept embodied in the patent in suit.
- b. Assume the mantle of the normally skilled but unimaginative addressee in the art (“person skilled in the art”) at the priority date and impute to him what was, at that date, common general knowledge in the art in question.
- c. Identify what, if any, differences exist between the prior art and the alleged invention.
- d. Ask whether, viewed without knowledge of the alleged invention (ie. without hindsight or *ex-post facto* analysis), those differences constitute steps which would have been obvious to the skilled man or whether they require any degree of invention.

5.5 In a recent case³, the court also applied :

- the ‘well-worth trying’ test i.e. the invention is obvious if the skilled person would have felt that the invention was well worth trying, to solve a problem or achieve a beneficial result⁴; and
- the ‘lying on the road’ test (i.e. the invention is obvious if the prior art was ‘lying on the road’ and there for the research worker to use⁵.

³ Merck & Co v Pharmaforte Singapore Pte Ltd [2000] 3 SLR 717

⁴ John-Manville’s Patent [1967] RPC 479

6. [Q2.1 – Means of disclosure]

There is no requirement that the availability be made via a particular means, method or mode or that it must be made to a large section of the public. The fact that no one knew of its availability or had inspected it are also irrelevant. Accidental disclosure also makes no difference, as is the difficulty of assessing the prior art so long as the disclosure is enabling.

It may be of interest to note that although the “person skilled in the art” is deemed to have read all relevant prior art, it remains arguable that not all prior art may hold the same relevance, depending on the common general knowledge of the notional skilled person in the art. In other words, all prior art shall be considered but it is a question of relevance - **Amersham Pharmacia Biotech v Amicon Ltd and 2 Ors**, unreported 5 July 2001, UK Court of Appeal.

7. [Q2.2 – Time of disclosure]

The time of disclosure is also irrelevant, so long as it was made before the priority date.

8. [Q2.3 – Place of disclosure]

8.1 The place of disclosure is irrelevant.

8.2 In determining whether a disclosure has occurred, since a Singapore patent is involved, the sufficiency or otherwise of the purported disclosure must be construed under Singapore law, in accordance with principles governing conflict of laws.

9. [Q2.4 & 2.5 – Personal elements/Recipient of information]

⁵ Genentech [1989] RPC 147

- 9.1 The disclosure of a matter constituting an invention shall be disregarded if the disclosure was due to or made in consequence of the matter having been obtained unlawfully or in breach of confidence from the inventor/proprietor or any person to whom the inventor disclosed the matter in confidence.
 - 9.2 If the disclosure was due to or made in consequence of the inventor displaying at an international filing exhibition, and a declaration is /proprietor made on filing and evidence filed to this effect, the disclosure may be disregarded.
 - 9.3 Disclosures made describing the invention in a paper read by the inventor/proprietor or another person with his consent before a learned society may also be disregarded. A learned society includes any club or association whose main object is the promotion of learning or science.
 - 9.4 In such cases, in order to be disregarded, the disclosure must have occurred later than the beginning of the period of 12 months immediately preceding the date of filing the application for the patent.
10. There is no statutory definition of the public. UK caselaw on this issue will be ordinarily be persuasive and those cases suggest that depending on the circumstances, where the prior art is not ordinarily accessible to the public, that disclosure may be disregarded.
 11. There is no specific requirement with regard to the ability of the notional skilled addressee to understand the information. However, that requirement is implicitly addressed by caselaw, in the consideration and application of the notional skilled addressee. That addressee is deemed

to be a man of ordinary competence in the field but without an inventive turn of mind. If additional steps are required, we believe that if it can be shown the notional addressee, in applying the common general knowledge to put the information into practice will undertake the additional steps (such steps being ordinary methods of trial and error and conceivably may include reverse engineering processes – **BSH Industries Patents [1995] RPC 183**, that information may have the effect of destroying novelty. But where the additional steps taken or the reverse engineering amounts to experiments with a view to “discovering something not disclosed” - **C Van der Lely NV v Bamfords Ltd [1963] RPC 61**, that may indicate that the patent is novel or inventive.

12. [Q3.1 to 3.5 – Disclosure through new media]

- 12.1 There is no restriction in the Patents Act that excludes paperless information from constituting a sufficient disclosure to affect novelty or inventive step.
- 12.2 If the information is encrypted and only accessible by certain persons, for example, with the necessary password or through payment, there may still be a disclosure since the ease or extent of the disclosure is irrelevant. The crucial question is whether that information was made “available to the public”, as required under the Patents Act.
- 12.3 As there is no requirement as to place or method of disclosure, the fact that the information is accessible over the Internet should not prevent such information from being part of the prior art. However, if the information is only available electronically for a temporary period of time, it may be difficult to prove and rely on such prior art, as a matter of evidence. The burden remains on the person seeking to invalidate the patent.

- 12.4 Note that there are certain requirements to be fulfilled for the admissibility of computer records as evidence in court, under the Evidence Act.

Summary

Patent law in Singapore is governed by the Patents Act, which is closely modelled on United Kingdom's Patents Act 1977. Section 14 provides that an invention shall be taken as new if it does not form part of the state of the art. Section 15 provides that an invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of art. The "state of the art" is defined as comprising all matter which has at any time before the priority date been made available to the public, in oral or written form or by use or any other way. The broad definition of state of the art means that the manner, time, extent or place of disclosure are usually irrelevant, so long as was made before the priority date and regarded as being made available to the public (subject to disclosure made in breach of confidence and certain statutory exceptions). Priority date of an invention is generally the date of filing of the application of the patent.

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