IN THE HIGH COURT AT CALCUTTA
Intellectual Property Rights Division
ORIGINAL SIDE

BEFORE:
The Hon'ble Justice Ravi Krishan Kapur

IPDPTA/11/2024

FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNGE
VS
THE CONTROLLER GENERAL OF PATENTS DESIGNS AND TRADE MARK AND ANR.

For the appellant : Mr. Adarsh Ramanujan, Advocate
Ms. Yamini Mookherjee, Advocate
Ms. Kaushiki Roy, Advocate
Mr. Sonal Mishra, Advocate
Mr. Antriksh Mishra, Advocate
Mr. Abhishek Sikdar, Advocate
Ms. Soumya Chaturvedi, Advocate

For the respondent no.1 : Mr. Swatarup Banerjee, Advocate

For the respondent no.2 : Mr. Sourav Mondal, Advocate

Heard on : 17.06.2026

Judgment on : 17.06.2026

Ravi Krishan Kapur, J.:

1. This is an appeal against an order dated May 24, 2024, passed by the Controller of Patents, whereby the appellant's Patent Application No. 202137013369 has been rejected under section 15 of the Patents Act, 1970 on the ground of insufficient disclosure, lack of clarity and non-compliance with the mandatory requirements under section 10 of the Act.

The subject invention titled a "*Method for stimulating the growth of biomass in a liquid inside a bioreactor*".

2. The application was originally filed on 26 March, 2021 and was followed by a request for examination on 16 February, 2022. The First Examination Report was issued on 12 July, 2022 which *inter alia* recorded that the specification was not well structured as required under section 10 of the Act. It lacked clarity, conciseness and definitiveness. Despite the amendments by the appellant, post the First Examination Report (FER), the application was rejected on both substantive and procedural grounds which had been indicated in the hearing notice.

3. It is contended by the appellant that the Controller committed a serious violation of procedure in bringing new objections in the hearing notice dated March 8, 2024. The First Examination Report issued on July 12, 2022, included only a technical objection under section 10 of the Act. In failing to comply with the mandatory provisions of sections 12(2), 13(3) and 14 with regard to conducting a fresh examination, the Controller came up with new objections under section 10(4) of the Act at the hearing itself and rejected the application.

4. The finding in the impugned order that the amended claims 1 to 8 lacked sufficient disclosure under section 10(4)(a) of the Act due to absence of working examples across the entire breadth of the claims is erroneous. In support of such contention, the appellant relies on the decision of the Supreme Court of the United Kingdom in *Regeneron Pharmaceuticals Inc v*

Kymab Ltd, [2020] UKSC 27 to contend the law does not demand an inventor to try, test and prove every single permutation within a claimed range. The true test is whether the specification discloses a principle of general application which enables a person skilled in the art to implement the invention across its scope without undergoing undue experimentation. It is contended that the specification satisfies this standard and the Controller failed to apply the perspective of a person skilled in the art when analyzing the sufficiency of disclosure. As the invention does not claim nor create any biological material, the legal requirement to disclose the specific geographic origins is not triggered. In such circumstances, objection raised by the Controller under section 10(4)(c) and section 10(5) of the Act is erroneous and misplaced. The Controller deliberately and arbitrarily picked out the words "maximum of" and "time interval" completely out of context to create ambiguity in finding the claims to be vague, broad and unclear.

5. On behalf of the Controller it is contended that the appellant's complete specification is inherently flawed and is in violation of section 10 of the Act. The invention is not in conformity with the statutory requirements of clarity, sufficiency of disclosure, and completeness in terms of sections 10(4)(a),10(4)(b) and 10(4)(c) and proviso to section 10(4)(d) of the Act. The specification is full of vague, indeterminate, and overbroad terms which do not constitute an enabling disclosure and hence the appellant is not entitled to the grant. In particular, the respondent has highlighted that

the claimed method discloses that a specific fraction of liquid up to 10% and preferably 5% is exposed to low-energy electrons or X-rays before mixing it back to the bulk volume but the entire procedure remains open. The complete specification neither offers a working example nor does it supply the operative experimental parameters so that a person skilled in the art can perform or reproduce the invention. The key parameters being that the acceleration voltage range is very wide i.e. 25 keV to 300 keV and is bereft of any data or illustration or physical embodiment demonstrating operability at that range. There is also no mention of the overall effect of the dose of cumulative radiation nor the mechanism by which the intensity of the irradiation can be changed.

6. It is further contended that the amendments made by the appellant at the stage of prosecution fail to rectify the inherent vagueness and that the substituted terms provided are equally ambiguous. The use of expressions like "at time intervals", "periodically", "at most" and "a maximum of" as well as operational windows arbitrarily extended from "minutes to months" raise issues of the impermissible level of breath and indeterminacy of the invention. Such broad and vague parameters do not serve to set clear technical boundaries, rendering the specification incapable of a definite construction and thereby violating the strict mandate of clarity and succinctness under section 10 of the Act. In addition, the appellant failed to disclose the source and geographical origin of the biological material utilized in the invention. The contention of the appellant that such

disclosure was irrelevant to the invention violates the statutory mandate of the Act. This omission is characterized as fatal and strikes at the very root of sufficiency of the specification. In support of the above, the respondent relies on the on *The Regents of the University of California v. Controller of Patents (CA (COMM.IPD-PAT) 481/2022), dated 21 February 2025* passed by the High Court at Delhi.

7. For convenience, section 10 of the Act is set out below:

> *"10. Contents of specifications.—(1) Every specification, whether provisional or complete, shall describe the invention and shall begin with a title sufficiently indicating the subject-matter to which the invention relates.*
> *(2) Subject to any rules that may be made in this behalf under this Act, drawings may, and shall, if the Controller so requires, be supplied for the purposes of any specification, whether complete or provisional; and any drawings so supplied shall, unless the Controller otherwise directs, be deemed to form part of the specification, and references in this Act to a specification shall be construed accordingly.*
> *(3) If, in any particular case, the Controller considers that an application should be further supplemented by a model or sample of anything illustrating the invention or alleged to constitute an invention, such model or sample as he may require shall be furnished 4 [before the application is found in order for grant of a patent], but such model or sample shall not be deemed to form part of the specification.*
> *(4) Every complete specification shall—*
> *(a) fully and particularly describe the invention and its operation or use and the method by which it is to be performed;*
> *(b) disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection; and*
> *(c) end with a claim or claims defining the scope of the invention for which protection is claimed;*
> *(d) be accompanied by an abstract to provide technical information on the invention:*
>
> *Provided that—*
>
> *(i) the Controller may amend the abstract for providing better information to third parties; and*
> *(ii) if the applicant mentions a biological material in the specification which may not be described in such a way as to satisfy clauses (a) and (b), and if such material is not available to the public, the application shall be completed by depositing 1 [the material to an international depository authority under the Budapest Treaty] and by fulfilling the following conditions, namely:—*

(A) the deposit of the material shall be made not later than the date of filing the patent application in India and a reference thereof shall be made in the specification within the prescribed period];
(B) all the available characteristics of the material required for it to be correctly identified or indicated are included in the specification including the name, address of the depository institution and the date and number of the deposit of the material at the institution;
(C) access to the material is available in the depository institution only after the date of the application for patent in India or if priority is claimed after the date of the priority;
(D) disclose the source and geographical origin of the biological material in the specification, when used in an invention.

[(4A) In case of an international application designating India, the title, description, drawings, abstract and claims filed with the application shall be taken as the complete specification for the purposes of this Act.]

[(5) The claim or claims of a complete specification shall relate to a single invention, or to a group of inventions linked so as to form a single inventive concept, shall be clear and succinct and shall be fairly based on the matter disclosed in the specification.]

(6) A declaration as to the inventorship of the invention shall, in such cases as may be prescribed, be furnished in the prescribed form with the complete specification or within such period as may be prescribed after the filing of that specification.

(7) Subject to the foregoing provisions of this section, a complete specification filed after a provisional specification may include claims in respect of developments of, or additions to, the invention which was described in the provisional specification, being developments or additions in respect of which the applicant would be entitled under the provisions of section 6 to make a separate application for a patent."

8. A reading of the above section mandates that the complete specification simply and particularly describe the invention and its operation or use and the method by which it is to be verified. It should also disclose the best method for performing the invention which is known to the applicant for which protection is claimed. Section 10(5) prescribes that the claim should be clear, succinct and fairly based on the description. The sufficiency and clarity of disclosure is integral to any application for patent. A full specification must disclose an embodiment of the invention

in such a way that the person skilled in the art can perform it without making further inventions or carrying out undue experimentation. (*Farbwerke Hoechst Ak. v. Unichem Laboratories, AIR 1969 Bom 255, Arti Srivastava v. The Assistant Controller of Patents, C.A.(COMM.IPD-PAT) 252/2022* dated 11 May 2026 passed by the High Court at Delhi).The appellant's specification, which is based on a trial-and-error method over an infinite range of time and physical parameters has been found to be excessively broad, vague, unclear is a typical case of "shooting in the dark" and hence is incapable of patentability. The invention neither provides any operative experimental parameters or working example enabling a person skilled in the art to perform the invention. The specification also does not disclose how the biomass tolerates irradiation, the permissible limits of exposure cycles, effect of cumulative parameters by which irradiation is to be modulated

9. In addition, the appellant's complete specification omits the source and geographical origin of the biological material on which the invention is based. Despite the fact that the appellant in its Written Submissions recognized the biological material of the invention as consisting of "micro-organisms, cells and/or other constituents cultivated in a bioreactor", the appellant after giving such an explicit definition, chose and also has admitted that it did not disclose the source or geographical origin of these biological agents. The contention that biomass was not being claimed as an invention and the same is irrelevant to the invention is untenable and

rejected. Such non disclosure strikes at the root of sufficiency of the specification.

10. The mandate of the second proviso to section 10(4)(d) of the Act requires an invention to disclose the source and geographical origin of such material if a biological material is used in the specification. The section makes it mandatory for everyone to deposit the material used in invention to an International Depositing Authority. The primary object in introducing this proviso was to avoid biopiracy, maintain India's genetic resources as its property, and also make it easier to abide by the provisions of the Biological Diversity Act, 2002, and the Convention on Biological Diversity (CBD). In such circumstances, the invention is in violation of the the clear statutory mandate. Failure to disclose the biological source and origin is a direct threat to the sufficiency of the specification and such lapse is critical and disqualifies the applicant from being granted a patent. This compulsory stipulation is also highlighted in Guideline 11.2 of the Guidelines for Examination of Patent Applications in the Field of Pharmaceuticals, which stipulates clear disclosure of the source and origin of any biological material cited in the specification, the condition being whether it is an Indian or a foreign source. For convenience, 11.1 and 11.2 of the Guidelines are set out below:

> *11.1 According to Section 10 (4) (a) and (b) of the Act, the complete specification shall fully and particularly describe the invention and its operation or use and the method by which it is to be performed and it should also disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection. As per Section 10(c), every complete specification should end with a claim or a set of claims defining the scope of invention. Section 10(5) prescribes that the*

claims should be clear, succinct and fairly based on the description. Also, the claims must relate to a group of inventions linked so as to form a single inventive concept For convenience, unity of invention has been discussed below, under separate head.

11.2 Sufficiency of disclosure with respect to biological material and deposits: If the invention relates to a biological material which is not possible to be described in a sufficient manner and which is not available to the public, the application shall be completed by depositing the material to an International Depository Authority (IDA) under the Budapest Treaty. The deposit of the material shall be made not later than the date of filing of the application in India and a reference of the deposit shall be given in the specification within three months from the date of filing of the patent application in India. All the available characteristics of the material required for it to be correctly identified or indicated are to be included in the specification including the name, address of the depository institute and the date and number of the deposit.

11. Sections 10(4) and 10(5) of the Act provides for the manner in which the disclosure and the claims are to be made in the complete specification. Every requirement under sections 10(4) and 10(5) is mandatory for the complete specification of a patent application to be valid in India. In terms of section 10(4)(a) of the Act every complete specification should describe the invention in full and provide full particulars thereof. Section 10(4)(b) of the Act requires the applicant to disclose the best method for working the same which is known to the applicant and for which he claims protection. The lack of specific disclosures or an insufficiency of disclosure, renders the subject patent application non-compliant with the mandatory requirements under section 10(4)(a) of the Act. Additionally, partial disclosure would not be sufficient to enable a person skilled in the field of microbiology to perform the invention as stipulated under section 10(4)(b) of the Act, without additional guidance. (*The Regents of the University of California v. The Controller of Patents*, *2025 SCC OnLine Del 987* and

AGFA NV and Another vs Assistant Controller of Patents and Designs and Another 2023 SCC OnLine Del 3493).

12. It is true that the claims are only required to provide reasonable certainty and not mathematical perfection. Nevertheless, the term "time interval" is used only in the dependent claims and the specification fails to disclose the frequency parameters. The absence of experimental data, operational instructions, or working examples leave the claims insufficient, unclear and imprecise under section 10(4) of the Act. Underpinning the sufficiency requirement is the idea that a patentee should only receive protection for what they have disclosed to the public.

13. The procedural argument raised by the appellant's made under section 13(3) of the Act is also erroneous and misplaced. Objections under section 10 of the Act were already raised in the FER and the appellant was put on notice. There was sufficient indication in the hearing notice dated 8 March 2024 and the Controller was justified to address the objections in the impugned order. Since the amendments could not satisfy the Controller, the Controller proceeded to issue a hearing notice which clearly provided the appellant grounds for objection. The appellant had ample opportunity to deal with the same and make amendments to the satisfaction of the Controller which it failed to comply with. Since post amendment of the impugned specification, nothing new was added nor was there any major amendment to the specification, there was no need for further

examination and thus the conclusion that the invention was ambiguous and insufficient.

14. The appellant had the opportunity to counter or deal with the objections raised at the time of the hearing and submit Written Submissions to satisfy the queries of the respondent authorities. However, no such attempt was made by the appellant. In such circumstances, the Controller was well within his jurisdiction to consider the surviving objections and to reject the application on the grounds in the impugned order. There has been no violation of the principles of natural justice nor has there been any procedural irregularity. The impugned order is reasoned and deals with the contentions of which the appellant had sufficient notice. To this extent, the reliance on the decision in *Regeneron Pharmaceuticals Inc v Kymab Ltd. (*Supra*)* is misplaced and distinguishable.

15. In a patent system, monopoly by way of a patent is a privilege only in return of a complete, clear, and enabling disclosure which adds something to the public domain. The failure of the appellant in making clear and sufficient disclosure within the available parameters is fatal to the application. Patents are also meant to teach people how to do things. It makes little sense to reward someone for disclosing their invention with a key element of the invention missing or the members of the public having to undertake additional or onerous research before they are in a position to reproduce the invention. The specification altogether is essentially

empty. It describes functional results and gives open ranges which would necessarily lead to excessive experimentation and uncertainty.

16. There is no illegality nor procedural irregularity nor perversity in the impugned order. The impugned order is adequately reasoned and warrants no interference. In such circumstances, there are no grounds to interfere with the impugned order.

17. In view of the above, IPDPTA 11 of 2024 is dismissed.

(Ravi Krishan Kapur, J.)