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* **IN THE HIGH COURT OF DELHI AT NEW DELHI**

Judgment reserved on: 17.09.2025
Judgment pronounced on: 20 .12.2025

\+ **O.M.P. (COMM) 548/2020, I.A. 10810/2020**

TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) .....Petitioner

Through: Mr. D. Bhattacharya, Adv.

versus

STRATEGIC ENGINEERING PVT. LTD. & ANR ....Respondents

Through: Mr. A. K. Thakur, Mr. Rishi Raj, Mr. Sujeet Kumar and Mr. Ningthem Oinam Advocates

\+ **O.M.P. (COMM) 128/2021, I.A. 4117/2021**

STRATEGIC ENGINEERING PVT.LTD. .....Petitioner

Through: Mr. A. K. Thakur, Mr. Rishi Raj, Mr. Sujeet Kumar and Mr. Ningthem Oinam Advocates

versus

TECHNOLOGY INFORMATION, FORECASTING AND ASSESSMENT COUNCIL (TIFAC) .....Respondent

Through: Mr. D. Bhattacharya, Adv.

CORAM:
HON'BLE MR. JUSTICE JASMEET SINGH

JUDGMENT

1. These are cross petitions filed under Section 34 of the Arbitration and Conciliation Act, 1996 ("***1996 Act***") seeking to set aside the Arbitral Award dated 14.12.2019 passed in the matter of "*Technology Information, Forecasting and Assessment Council v. M/s Strategic Engineering P. Ltd.*" wherein some claims of both contesting parties were allowed and some claims were disallowed. Both the parties have filed their respective petition to challenge the said Award.

FACTUAL BACKGROUND

2. Technology Information Forecasting and Assessment Council ("***TIFAC***"), claimant before the Arbitrator, is a registered society under the administrative control of the Department of Science & Technology, Ministry of Science & Technology, Government of India.

3. M/s Strategic Engineering Pvt. Ltd. ("***SEPL***"), respondent before the Arbitrator, is a company involved in the business of manufacture and trade of engineering equipment.

4. The parties along with Madras Institute of Technology ("***MIT***"), executed a Tripartite Agreement dated 22.12.1999 being Technology Development Assistance Agreement ("***TDA***"), whereby SEPL sought the support of TIFAC to design and develop the composite refill cylinders for Compressed Natural Gas ("***Project***").

5. The approximate cost of the project was Rs. 5.78 crores out of which the share of SEPL was Rs. 2.98 crores and the financial assistance to be contributed by TIFAC was to be upto Rs. 2.80 crores.

6. The said TDA contained an arbitration clause being Clause No. XVI. The same reads as under:

"a. If any dispute or difference arises between the Parties hereto as to the construction, interpretation, effect and implication of any provision of this Agreement including the rights or liabilities or any claim or demand of any Party against other or in regard to any matter under these presents but excluding any matters, decisions of determination of which is expressly provided for in this Agreement, such disputes or differences shall be referred to the sole arbitration of the Secretary of the Department of Science &Technology, Government of India, or that of his nominee and his decision will be final and shall be binding on all the Parties. A reference to the arbitration under this Clause shall be deemed to be submission within the meaning of the Arbitration Act, 1940, and the rules framed there under for the time being in force.

b. If the "COMPANY" does not make any claim or demand or raise any dispute of difference in terms of Sub Clause "a" of this Clause within six months from the date on which such claim or demand arises, the "COMPANY" shall deem to have waived and abandoned such claim or demand or the right to raise such dispute or difference against "TIFAC".

c. The venue of the Arbitration shall be at Delhi."

7. Pursuant to the execution of TDA, a Hypothecation Agreement was entered into between the parties, wherein the financial Assistance provided by TIFAC was secured by a second charge by way of hypothecation.

8. In terms of the TDA, the Advisory and Monitoring Committee ("***AMC***") was constituted with Prof. S.C. Lakkad of IIT- Mumbai as the Chairman and comprising of technical experts like engineers, professors, scientists having the knowledge and expertise in the field of science and technology. The said Committee was constituted to assess the progress of the project from time to time.

9. <u>Facts as per TIFAC (Petitioner in O.M.P. (COMM.)548/2020)</u>

9.1 During the 5th meeting of AMC dated 24.08.2001, upon examining the progress of the project, and on observation of one of the AMC members, the AMC declared the project a success and remarked that SEPL would have to repay the financial assistance received by it as per the TDA.

9.2 SEPL during the 6th AMC meeting submitted 12 post dated cheques in favour of TIFAC which were towards the repayment of financial assistance received by it. The AMC also accepted SEPL's request for restructuring the repayment process.

9.3 The said post dated cheques delivered by SEPL were dishonoured. Thereafter, SEPL made a few repayments by way of demand drafts to the tune of Rs. 4,00,000/-.

9.4 SEPL *vide* various letters dated 19.02.2003, 25.02.2003, 23.04.2003 and 06.05.2003 requested TIFAC to reschedule the repayment from time to time. SEPL also gave assurance for repayment in its letter dated 10.10.2003. SEPL also admitted its liability to repay even in its balance sheet dated 31.03.2006 mentioning that the sum of Rs. 2,76,00,000 was due to TIFAC. SEPL also admitted its liability to repay in the transfer petition filed before the Patiala House District

Court.

9.5 TIFAC filed a civil suit for recovery of money bearing CS (OS) 2265/2007. The same was disposed of *vide* Consent Order dated 29.09.2008 and the parties were referred to arbitration.

10. <u>Facts as per SEPL (Petitioner in O.M.P. (COMM.) 128/2021)</u>

10.1 TIFAC disbursed a sum of Rs. 2.80 crores for the said project to SEPL by UBI cheques dated 22.12.1999, 14.03.2000 and 29.11.2001.

10.2 The time for completion of the said project was 24 months which was extended by the AMC for a further period of 2 months for procurement of the 3 Axis Filament Winding Machine ("***Machine***").

10.3 In the 5th AMC meeting SEPL was informed that Type II composite CNG Cylinders had been successfully developed using two axis filament winding system. However, the ultimate aim of the said project was successful commercial production of Type III cylinders and not Type II cylinders. The project was still incomplete merely at the design of Type II cylinder. The AMC in the same meeting recommended the release of Rs. 1.85 crore by TIFAC for procurement of the Machine.The project could have achieved commercial viability only upon successful commercial production of Type III cylinders for which the Machine was an essential requirement and hence the declaration that the project was a success by the AMC in the fifth meeting was wrong.

10.4 Pursuant to the AMC meeting, TIFAC paid the sum of Rs. 1.85 crore to SEPL for procurement of the Machine clearly showing that

the project was nowhere complete. Thereafter, SEPL placed an order for procurement of the Machine on M/s Entech USA on 19.10.2001. The whole amount of Rs. 1.85 crore was paid by SEPL to M/s Entech, USA towards sale consideration for the Machine. However, due to reasons beyond the control SEPL, the said machine was taken back by the US Custom Authorities after it had reached Singapore due to its dual Application possibility to cater to the requirement in the field of space and defence.

10.5 SEPL fought a legal battle in the courts of USA and consequently, the Machine was finally released in August, 2003. However, while releasing the Machine, the Axis of the Machine was removed by the Custom Authorities and only a 2 Axis Filament Winding Machine could be received. The entire project was based on the 3 Axis Filament Winding Machine and hence the ultimate objective of the project, that is, successful production and commercialization of Type III Cylinders was never achieved.

10.6 However, SEPL herein, in bonafide interest and utmost good faith with the intention of securing relationship for the successful completion of Phase-V of the project, issued 12 Post Dated cheques on the assurance of TIFAC that the same were only for the purpose of audit records and will not be presented for seeking payment at any time. TIFAC, with malafide intentions, presented the said cheques despite repeated requests made by SEPL not to present them. Therefore, the cheques were returned with an endorsement "insufficient funds"

10.7 SEPL, disbursed a sum of Rs. 4,00,000/- towards the payment, in the

hope that the Machine would be procured soon and thereafter when project succeeds, the repayment process can be started. Since, the required Machine was never procured, consequently, the project could not become a success and therefore, the question of repayment did not arise.

10.8 TIFAC preferred Complaints under Section 138 of the Negotiable Instruments Act, 1881 against SEPL and its Directors. In the Civil Suit filed by TIFAC, vide consent order dated 29.09.2008, the matter was referred to the Sole Arbitrator, who made and pronounced the Award dated 14.12.2019.

11. The Arbitrator adjudicated the dispute between the parties and held as under-

> *"1. Since the project was not taken to a fruitful conclusion, SEPL need not contribute funds to TIFAC as per the TDA Agreement.*
>
> *2. While SEPL need not contribute funds to TIFAC as per the TDA Agreement, it is logical that TIFAC recovers a part of its investments on the project by selling/auctioning plant and machineries acquired under the project and distributing the proceeds as per the TDA and Hypothecation Agreements. This action may be completed within three months of passing of this award.*
>
> *3. In case SEPL wants to retain the set of plant and machineries acquired under the project, they may do so after paying Rs 28 lakhs minus Rs 4 lakhs already paid by SEPL that is Rs 24 lakhs to TIFAC within three months.*

4. SEPL may immediately pay Rs 5 lakhs for wrongly securing TIFAC investment through a guarantor - company (PCACPL) whose management functionaries were same as that of SEPL, and for failing to bring these management functionaries to appear in the Arbitration proceedings in spite of repeated orders of the Arbitrator. This amount of Rs 5 lakhs may be paid as contribution to the Prime Minister's Relief Fund within three months and copies of the receipt may be sent to Arbitrator and TIFAC.

5. TIFAC may also pay Rs 5 lakhs penalty for casually accepting such a guarantor - company (PCACPL) whose management functionaries were same as that of SEPL, in order secure its investments. This amount of Rs 5 lakhs may be paid as contribution to the Prime Minister's Relief Fund within three months and copies of the receipt may be sent to Arbitrator and SEPL.

6. SEPL could have utilized plant and machineries acquired under the project to manufacture some products of their own business interest and thereby contributing to the national economy as well. They did not do so. SEPL is asked to pay back 10% of Rs 280 lakhs of tax-payers money (channelized through TIFAC) that is Rs 28 lakhs to TIFAC in two three-monthly instalments.

7. Further, TIFAC may pay another Rs 5 lakhs penalty for so casually formulating, and managing such a project of national interest. This amount of Rs 5 lakhs may be paid as

contribution to the Prime Minister's Relief Fund within three months and copies of the receipt may be sent to Arbitrator and SEPL."

SUBMISSIONS ON BEHALF OF TIFAC

12. Mr. D Bhattacharya, learned counsel appearing on behalf of TIFAC, vehemently challenges the Award.

13. Mr. Bhattacharya, learned counsel states that as per the Clauses V, VIII and IX the repayment of the amount was dependent upon the success in development of the technology and not on any commercial outcome. He challenges the said reasoning of the Arbitrator wherein he holds that the success of the project is dependent upon the commercial outcome of the said project. He places reliance on ***Union of India v. Selan Exploration Technology Ltd., 2010 SCC OnLine Del 3872,*** wherein it was held that *"no clause of the contract can be given a go-bye and an interpretation which goes contrary to an express term of the contract can certainly not be adopted."*and states that the Arbitrator has all together ignored the material clauses of the contract.

14. He submits that the impugned Award itself records that no reliance has been placed on any document prepared with the assistance or guidance of the MIT, ostensibly to avoid any confusion. Therefore, it is clear that the Arbitrator has erroneously held that SEPL is not liable to repay the financial assistance on the grounds that there was no "commercial success", or that there was no application or utilisation of the technology by SEPL, or that the project was not taken to its logical and fruitful conclusion. It is contended that such findings are wholly contrary to the clear and express terms of the contract and unsustainable

in law.

15. It is submitted by the learned counsel that the Arbitrator did not have the jurisdiction to decide whether the project was a failure or a success. The same came under the purview of the AMC.

16. He submits that the Award fails to take note of the fact that, pursuant to the AMC's meetings dated 05.11.2002 and 06.11.2002, SEPL deposited cheques towards repayment of the financial assistance on 21.10.2002, under cover of a letter dated 21.10.2002. Even thereafter, SEPL continued to deposit additional cheques towards repayment, *vide* letters dated 19.02.2003, 25.02.2003, 25.02.2003, 23.04.2003 and 06.05.2003.

17. He draws my attention to the categorical findings of the Arbitrator that the AMC had declared the project as a "success" and that SEPL never raised any objection to such declaration at any point of time and, therefore, the said declaration should be relied upon and argues that Arbitrator erroneously declined to hold that the project was "successful" by introducing extraneous considerations such as "commercialisation" and "market acceptance". The Award further proceeds on an incorrect assumption that a declaration of "success" could only be made upon the so-called commercialisation of the project. These conclusions are directly contrary to the express terms of the contract, which was "successful development of the technology". The development of technology was not dependent either on commercial exploitation or market acceptability. These two factors are extraneous to the terms of the contract and by relying upon commercialisation and market acceptability as being the parameters for

judging the project as successful, the Arbitrator has re-written the terms of the Contract and hence, the findings are perverse to the evidence on record. He places reliance on *Dyna Technologies (P) Ltd. v. Crompton Greaves Ltd.*[1]

SUBMISSIONS ON BEHALF OF SEPL

18. Mr. A.K. Thakur, learned counsel for SEPL, opposes the challenges posed by learned counsel of TIFAC and he further challenges the Award only to the extent of finding No. 6 on the ground of the same being perverse and contradictory to the findings of the Award itself.

19. He states that the AMC could not have been treated as the final authority, since its very decision constituted the subject matter of dispute which was referred to arbitration. Once the decision of the AMC was under challenge before the Arbitrator, the decision of the AMC could not have attained finality or bind the parties. The minutes of the 5th AMC meeting are contradictory in itself and hence TIFAC has wrongly placed reliance on the same.

20. He points out that the issue of repayment would only arise after the project was declared as successful, which was wrongly done by the AMC. Therefore, the subject matter of the dispute was the said report. Moreover, the Arbitrator, himself was a senior scientist and technocrat, has independently examined the decision taken by the AMC and rendered his findings thereon. The submission of TIFAC that the AMC is the final authority cannot be accepted as then there would be no disputes between the parties to be referred to Arbitration.

21. He further states that the decision in the 5th AMC meeting dated

[1](2019) 20 SCC 1.

24.08.2001 cannot be relied upon as it is in itself contradictory. It is apparent upon the bare reading of the minutes of the meeting. On one hand AMC declared the project as successful and on the other hand it was directed to TIFAC to release the money to SEPL for procurement of the Machine.

22. It is emphasised that the contention of TIFAC that the cheques were given in the form of repayment is absolutely erroneous. The cheques were provided by SEPL in good faith and only upon the procurement of the Machine and aluminium linear, the project would become a success. As per the terms envisaged under the TDA the repayment would only begin at the successful completion of the said Project and its commercial utilisation. Since, the project was neither successful nor attained commercial viability therefore the question of repayment did not arise.

23. He points out that the cheques were issued on October, 2002 which is a year prior to the arrival of the Machine. TIFAC illegally and arbitrarily encashed the said cheques more than six months prior to the arrival of the Machine. The Machine arrived on 05.09.2003, which is evident from the bill of entry as stamped by the Chennai Custom Authorities whereas the cheque was presented for repayment by TIFAC in January, 2003.

24. He submits that the cheques were submitted by SEPL to TIFAC as SEPL wanted to continue the work. The same is evident from the fact that an amount of Rs. 4,00,000 was also paid by SEPL. This amount was not in pursuance of repayment obligation, as the same would have only arisen after the successful completion of the Project. It is also

evident from the findings of the Arbitrator that the project was not successfully completed.

25. Challenging the finding No. 6 of the Award, Mr. Thakur submits that Arbitrator himself has observed that the declaration of the project as "successful" after the 5th AMC meeting was erroneous, particularly in view of the fact that the funds for procurement of the Machine were released only after the said meeting. In such circumstances, the project could not, in any manner, have been declared successful. Therefore, the finding of the Arbitrator directing SEPL to pay a sum of Rs. 28,00,000/- to TIFAC as SEPL could have utilized plant and machineries acquired under the project to manufacture some products of their own business interest and thereby contributing to the national economy as well and they did not do so, is contrary to the evidence and material placed on record. He places reliance on *SBP and Co. vs Patel Engineering and Anr.*[2]

ANALYSIS AND FINDINGS

26. I have heard the learned counsels for the parties and perused the material on record.

27. Before proceedings with the objections raised by the parties, it is pertinent to reiterate the scope of interference under Section 34 of the 1996 Act. The scope under section 34 of the 1996 Act is very limited and narrow as the Court does not sit in appeal over the Award or reviews the Award passed by the Arbitral Tribunal or re-appreciates the evidence. Further, it is the prerogative of the Arbitral Tribunal to interpret the term of the Contract and if the Arbitral Tribunal has

[2](2005) 8 SCC 618.

adopted a view which is plausible, the Court is not required to interfere even if an alternate view is possible. To set aside the Award, the Award must fall under any of the grounds as mentioned in section 34 of the 1996 Act. One of the grounds, amongst other, pertains to patent illegality. Section 34 (2A) of the 1996 Act provides that if the Award is patently illegal then it is liable to be set aside. The Award is said to be patently illegal if it is contrary to substantive provisions of law of India, or provisions of the 1996 Act or the terms of the contract.[3] Reliance is placed on ***OPG Power Generation (P) Ltd. v. Enexio Power Cooling Solutions (India) (P) Ltd.***[4]**.**

28. With these principles, I shall now consider the rival contentions of the parties.

TIFAC's Challenge to the Award (O.M.P (COMM) 548/2020)

29. TIFAC's primary challenge to the Award is based on the finding of the AMC that the Project was successful and the same was declared by the 5th AMC meeting. Therefore, in terms of Clause No. IX of the TDA, SEPL is liable to pay Rs. 3.36 crores.

30. It is the contention of TIFAC that the repayment is dependent upon success in development of the technology and not its commercial outcome. The finding of the Arbitrator that the project needs to attain commercial viability for repayments to begin, is misplaced. Further, the SEPL never objected to the said certification of AMC in the 5th and 6th meeting, that the technology has been developed successfully. The Arbitrator also supported the said contention and gave a finding that

[3]*Associate Builders v. DDA*, (2015) 3 SCC 49.
[4](2025) 2 SCC 417, ref. paragraph Nos. 65-68.

SEPL never objected to the declaration in AMC's 5th and 6th meeting. In terms of Clause No. VIII before declaring the project as successful, TIFAC was required to take into consideration any objections raised by SEPL or MIT. Since no such objections were raised by SEPL or MIT, there was no hinderance in declaring the project as successful. On the issue of submitting the cheques, it is the contention of TIFAC that the cheques were submitted for repayment in terms of Clause IX of the TDA.

31. On the contrary it is the contention of SEPL that the obligation of repayment does not arise until the project has achieved commercial viability. The AMC in 5th meeting has erroneously held that the project is a success whereas only Type II cylinders were developed and not Type III cylinders.

32. Before delving into analysis of the facts and terms of the TDA, it is pertinent to highlight some important recitals and terms and conditions of the TDA. The "Company" here refers to SEPL. The same reads as under:

> *"WHEREAS the "COMPANY" is also desirous of further work with the assistance of "MIT" in the up-scaling of the "PRODUCT"/"PROCESS" to acquire the capability for commercialization.*
>
> ***xxxx***
>
> *"WHEREAS the "COMPANY" is convinced about the ·viability of "PRODUCT"/"PROCESS" after having discussions with "MIT" and has expressed confidence in going into commercial production.*

WHEREAS "TIFAC" and the "COMPANY" are willing to support financially and technically the "PROJECT" for the development of the "PRODUCT"/"PROCESS" for the ultimate commercial exploitation.

xxxx

I. DEFINITIONS

....

C. "PROJECT" means and includes the work involving development of total technology package of "PRODUCT"/"PROCESS" for ultimate commercialization…

II. PROJECT AND SCHEDULES

The "PROJECT" covered under this Agreement aims at:

a. Designing of high pressure composite cylinders for storage of Compressed Natural Gas by analysis of CNG cylinder designs using FEM for various size and pressure, for optimum fibre orientation and lay-up sequences for fabrication purposes.

b. Development of design data and detailed procedures for the fabrication of composite refill Gas cylinder for CNG.

c. Testing of the cylinders for typical load applications like pressure, impact, fatigue, crashworthiness and vibration.

d. To pave the way for a closer Industry and Institute interaction for developing key projects.

e. *To develop a commercially viable technology to indigenously produce CNG Cylinder.*

Details of the activities envisaged and the approximate schedules are provided in the Project Document submitted by the "COMPANY" to "TIFAC" which is appended herewith (ANNEXURE - I).”

(emphasis supplied)

33. In this respect, it is important to shed light upon the relevant clauses of TDA. The clauses read as under:

*“**VIII. SUCCESSFUL DECLARATION OF THE PROJECT***

Successful development of technology shall be deemed to be completed when the Advisory and Monitoring Committee certifies to the effect in writing and is accepted by “TIFAC”. The views of “MIT” and the “COMPANY” shall also be considered by “TIFAC”. The decision of “TIFAC” in this regard shall be final and binding on all the Parties.”

*“**IX CONTRIBUTION OF FUNDS TO “TIFAC” BY “COMPANY”***

If the development of technology is successful as declared by the Advisory & Monitoring Committee, the company shall contribute funds without any condition to “TIFAC” by way of an amount not exceeding Rs.336.00 lakhs (Rupees Three Hundred and Thirty-six lakhs only) in five yearly instalments, each instalment being Rs.67.20 lakhs (Rupees Sixty-seven lakhs Twenty thousand only).

[NB : The total repayment amount would be 1.2 times the financial assistance extended by TIFAC to the Company.]

….”

(emphasis supplied)

34. On perusal of the minutes of the 5th AMC meeting dated 24.08.2001, it is evident that the AMC declared that project to be successful. Even Mr. Vishwanath, Managing Director of SEPL informed the committee about the successful development of Type II cylinders. Based on the said statement the further discussion in the meeting took place and Mr. Biswas commented about the success of the project. The minutes of the meeting dated 24.08.2001 are reproduced as under:

“Advanced Composites Mission

Fifth Advisory & Monitoring Committee meeting for project on ‘Composite CNG Cylinders for Automobiles’

Date*: August 24, 2001*

Venue*: Strategic Engineering Pvt. Ltd., Manamadurai*

The list of the Advisory & Monitoring Committee (AMC) members and other participants is given as Annexure-1.

At the outset, Mr. Viswanath welcomed all the AMC members especially Shri K L Agrawal of Global Composites International, USA & overseas consultant for the project and Mr. Steven Hutchinson of Authorised Testing Inc., USA. Mr. Viswanath informed the Committee that under the guidance of Dr. Agrawal, SEPL has designed the carbon composite cylinders with aluminium liners - the same has been submitted for DOT approval & certification for large-scale

production. He further remarked that the presence of Mr. Steven Hutchinson was mandatory for witnessing the composite cylinder fabrication and testing for pressure cycling test & hydrostatic burst test for DOT approval.

Mr. Viswanath informed the Committee at Strategic Engineering has successfully developed composite CNG cylinder (Type-2) for cars. ***Type-2*** *cylinders comprise a steel liner hoop wrapped with glass fibre by filament winding over the cylindrical portion of the liner so that the filaments provide additional strength only in the hoop direction and not in the longitudinal direction of cylinder. A typical steel liner with - 65 L capacity with wall thickness of 4.5mm and dome thickness of 12mm was 'hoop wrapped' with 8-9 Kgs. of FRP. The total weight of such FRP CNG cylinder was around 58 Kgs. as against of 68-72 Kgs of all steel cylinder. The hoop wrapped cylinders were successfully tested for pressure cycling test & hydrostatic burst test. Mr. Viswanath further informed that two such cylinders would be shipped to Authorized Testing Inc., USA for carrying out the bonfire test.*

Mr. Hutchinson described various tests required to be carried out on the composite CNG cylinder for DOT approval. Under Pressure Cycling Test, the cylinder is pressurized to not more than 10 percent of the service pressure for 13,000 cycles and up to 125 percent of the service pressure for 5000 cycles. CNG cylinder was required

*to be tested to withstand **2.25 times** the service pressure for Hydrostatic Burst Test. Mr. Hutchinson informed the Committee that the Bonfire Test could only be done at their laboratory in USA and would require two cylinders. For bonfire test, the cylinder (equipped with a pressure release device) filled with CNG is placed horizontally. Three thermocouples are attached at the container's bottom (midpoint) and one at each end where the dome end meets the container sidewall. The entire cylinder is then subjected to the flame (temperature between 850°-900° C for 20 minutes duration or till its contents are completely vented). If the test container is 165 cm in length or less, it needs to be placed in the upright position.*

Mr. Hutchinson further informed the Committee that cylinders to qualify as per NGV2-2 standards, they are tested more stringently. NGV2-2 standards clearly specify the chemical composition of the liner material, its mechanical properties, pressure cycle, burst test, composite flaw tolerance test, drop test, bonfire test, accelerated stress rupture test and penetration test. While for DOT approval as per code # 571.304, the cylinders are required to be tested for pressure cycle test, burst test and bonfire test only. Mr. Hutchinson observed that the composite CNG cylinders have been tested successfully as per DOT code # 571.304. He was quite hopeful that the cylinders would also qualify in the bonfire test. ATI would be in a position to issue the certificate

of compliance for composite cylinders, manufactured by SEPL, with DOT standards by end September 2001.

Mr. Ramakrishnan informed the Committee that chemical & mechanical properties of the liner have been ascertained. The liner was subjected to hydrostatic burst pressure test. The liner passed the requirement of withstanding 125 percent of the service pressure.

Mr. Balakrishnan remarked that every CNG cylinder is permanently labeled with a serial no. and a certificate is issued by the Chief Controller of Explosives (CCOE), Govt. of India. The vehicle fitted with a CNG cylinder has to be type approved by ARAI, Pune. ARAI does a comprehensive test of the CNG cylinder, fixing arrangement of the cylinder, safety valve etc. before clearing the vehicle for regular production by the automobile manufacturer. He informed that all steel cylinders are inspected/tested after 5 years of service life.

Mr. Biswas informed that a meeting has been arranged with the Chief Controller of Explosives at Nagpur on 29th August for discussion regarding approval. Prof. Lakkad advised that we should go prepared with all relevant standards on the subject.

Mr. Hutchinson informed that steel lined composite cylinders needs to be inspected/tested after every 3 years of service life and aluminum lined composite cylinder are physically examined after every 18 months.

Mr. Viswanath remarked that Strategic Engineering would be placing an order for procuring 3-axis filament winding machine and would simultaneously interact with CCOE for necessary approval. He requested the AMC to extend the project period up to February 2002, to enable SEPL carry out a market seeding of Type-2 cylinders in India.

The Committee was satisfied with the technical progress & recommended an extension of project period by two months i.e. up to ***February 2002****. The Committee advised SEPL for sourcing suitable steel liners from domestic/overseas market for production of Type-2 CNG cylinders. The Committee also desired that SEPL should identify sources for procuring aluminium liners for Type-3 CNG cylinders as the next step. The Committee recommended the release of final TDA instalment amounting to* ***Rs.185.00 lakhs*** *by TIFAC for procurement of 3-axis filament winding machine subject to the satisfactory progress in CCOE's approval*

Mr. Biswas commented that the project has achieved the stipulated objectives as stated in the project proposal. The Advisory & Monitoring Committee declared the project as a success and remarked that Strategic Engineering would repay technology development assistance as per the agreement.

The Committee while noting the progress of activities finalized the following action-plan to be complied with by SEPL before the next AMC meeting to be held sometime in February 2002:

a. Certificate for Bonfire test from Authorised Testing Inc., USA by ***Sept 21, 2001****.*

b. Certificate for Type-2 CNG cylinder from Authorised Testing Inc., USA manufactured as per DOT standards by ***September 30, 2001.***

c. 3-axis filament winding machine required for large-scale production of Type-2 FRP CNG cylinders to be procured by mid ***February 2002****.*

The Committee members also witnessed a hydrostatic burst test carried out on type-2 CNG cylinder after the cylinder had been subjected to pressure cycling test. The cylinder withstood 8000 bar of hydrostatic pressure before bursting at the cylindrical portion."

35. The only requirement, as per the terms of the Clause No. VIII of the TDA for completion of the successful development of technology, is the certification of the AMC and acceptance of the same by TIFAC. The decision of the AMC, being the competent authority to declare the project to be successful, is binding on the parties in terms of the said Clause of the TDA.

36. It is also pertinent to note that as per Clause No. VIII itself, before TIFAC arrives on the decision that the project is successful, the views of MIT and SEPL would also be considered by TIFAC.

37. The 6th AMC meeting dated 21.10.2002 records that the cheques were submitted to TIFAC in the meeting so as to ensure the repayment as per the terms of the TDA, more specifically Clause No. IX. The minutes of the AMC meeting read as under:

> ***"Advanced Composites Programme***
>
> ***Sixth Advisory & Monitoring Committee meeting for project on 'Composite CNG Cylinders for Automobiles'***
>
> ***Date**: October 21, 2002*
>
> ***Venue**: Strategic Engineering Pvt. Ltd. (SEPL), Manamadurai*
>
> *The list of the Advisory & Monitoring Committee (AMC) members and other participants is given as Annexure-1.*
>
> *At the outset, Mr. GS Viswanath, Managing Director-SEPL welcomed all the AMC members and informed that CNG cylinder (Type 2-steel liners hoop wrapped with FRP) for cars had been successfully developed and tested for hydrostatic test, leak test, burst test, pressure cycle test etc. as mentioned in the last AMC meeting. The cylinder was subsequently tested successfully for bonfire test by the US agency accredited by the Department of Transportation (DOT), US Federal Govt. as per their specifications.*
>
> *Mr. Viswanath further informed that SEPL planned to manufacture Type II & Type III (steel liners fully wrapped*

with FRP) for Samtel International Inc., California, USA and Pressed Steel Tank Co., Inc of USA based on steel liners sourced from USA as per the specs provided by them. The Companies agreed to supply the steel liners for the cylinders. The cylinders would be marketed by the US Companies in East Europe, south-east Asia & Australia. SEPL would also proceed with getting the cylinders tested as per newly finalized ISO standards. Exporting to US Companies and conformity to ISO standards would further help SEPL to get the cylinders subsequently approved by Chief Controller of Explosives (Govt. of India), Nagpur for introducing FRP CNG cylinders to Indian market.

With the aforesaid action plan, SEPL placed an order for the procurement of 3-axis filament winding system from Entec, USA for the production of FRP CNG cylinders in as early as October 2000. The last instalment of advance payment to Entec was made in March 2001 after the release of last and final TDA instalment of Rs.185 lakhs from TIFAC in November 2000. The 3-axis system was expected to be delivered by early May 2001. Mr. Viswanath informed the Committee that the despatch of the filament winding system was delayed considerably due to the protracted clearance from the Federal Department of Commerce, US Govt. SEPL had to engage a lawyer for representation to US Govt. After a lot of deliberations and detailed assessment of SEPL by Dun & Bradstreet, the import license for filament winding system

had recently been cleared by the US Govt. and the system would be shipped shortly. SEPL was confident of starting the commercial production of FRP CNG cylinder by February 2003.

The prototype cylinders fabricated on Entec's 2-axis machine were tested successfully as per the DOT specifications. Hence, SEPL wanted to procure 3-axis system from Entec for better confidence among US Companies for sourcing hoop wrapped cylinders from SEPL.

Mr. Balakrishnan remarked that Ashok Leyland was looking for a bigger diameter CNG cylinder (450 mm dia.) for buses. This would help in the reduction of cost towards fitting of three cylinders as well as providing inter-connectors.

The Committee advised SEPL for ensuring the earliest possible delivery of 3-axis filament winding system, its installation and commissioning. The procurement of liners should also be taken up simultaneously.

Mr. Biswas remarked that a visit would be called sometime in February 2003 after the commissioning of 3-axis filament winding system for witnessing the commercial production of FRP CNG cylinders.

As per the tripartite agreement, SEPL was required to repay TDA to TIFAC commencing in January 2003. A total amount of Rs.336 lakhs would be reimbursed by SEPL as per the agreement. The Committee observed that as there has

been an inordinate delay in the shipment of 3-axis filament winding machine due to export license formalities by US Govt., SEPL would be in a position to manufacture & supply composite CNG cylinders commercially starting from February 2003.

On request from SEPL, AMC agreed to accept TDA repayment for the first year in four instalments @ Rs. 16.80 lakhs starting from January 2003. The subsequent instalments @ Rs 33.60 lakhs for the balance four years would be paid half-yearly. Accordingly, SEPL submitted 12 post-dated cheques for the aforesaid TDA repayment."

38. SEPL never objected to the said finding of AMC in the 5th and 6th meeting. The Arbitrator also supported the said contention and recorded a finding which reads as under:

"AMC had six meetings. In the 5th meeting, the technology development was declared "successful". SEPL did not object to the decision in the 5th meeting itself, did not send any communication objecting to the decision after the meeting, or, did not raise the issue in the 6th meeting. Therefore, the decision regarding success of the project taken in the 5th meeting of the AMC may be taken as confirmed.

….

Given the Situation, Arbitrator observes the following:

• For reasons best known to them, the AMC declared the project "successful" in its 5th meeting.

• As per the understanding between TIFAC and SEPL, AMC

is the final authority to assess whether a project is successful. AMC declared "success" in its 5th Meeting. This was duly recorded in the minutes of the said meeting. Chairperson AMC Prof Lakkad had also confirmed the same on two occasions he participated in the instant arbitration proceedings.

• After declaration of success, SEPL had not gone on record to appeal to AMC to revisit the decision taken by AMC.

• Therefore, Arbitrator is left with no other alternative but to respect the declaration of "success" by AMC.

• However, the action of AMC/TIFAC as recorded in the same 5th meeting minutes is confusing. Through this AMC directed TIFAC to release funds for the most significant piece of equipment: 3-axis filament winding machine for the project.

• Arbitrator questions the logic of said action after declaring success of the project

• TIFAC stated that this was done to facilitate SEPL to do commercial operations. Arbitrator does not accept this explanation given by TIFAC since TIFAC is not afinancial institution in the business of providing financial support for setting up a commercial entity.

• Even if it were so, there is no evidence to show that the project had ever reached the large - scale production /commercial stage. Based only on positive results of technical tests, it should not be concluded that technology

development is complete; the product is to be tested for market acceptance by end-users.

• Therefore, declaration of "success" did not imply declaration of "conclusion" or "end" of the project. Arbitrator finds the "hurry" in declaring "success" baffling."

(emphasis supplied)

39. Three things emerge from the above:

a. The recitals reproduced above as well as definition in the TDA show that the aim of the project, amongst others, is to achieve commercial viability of the technology developed.

b. The word "technology" is not defined in the TDA.

c. The final authority as per the terms of Clause VII to determine whether the development of technology is successful or not, is the AMC.

40. Upon perusal of the detailed technical description of the activities to be carried out in the project, as given under the TIFAC project proposal under TPMM on advanced composites, it can be established that the project was divided into 5 stages being consolidation of design literature and data to determine various parameters, analysis of the data consolidated, fabrication of sample cylinders, testing of the equipment and lastly, commercial production. The same is reproduced as below:

"4. DETAILED TECHNICAL DESCRIPTION OF THE ACTIVITIES: A WRITE-UP WITH RESPECT TO OBJECTIVES AND MAJOR TARGETS

STAGE I-DESIGN BY MIT:

Design literature and data on Pressure Vessel design & analysis, already gathered by MIT and SEPL will be consolidated, analysed and final design parameters like diameter, thickness & length will be decided based on market demand and usage.

STAGE II-ANALYSIS BY MIT:

Based on the parameters decided in the design phase, analysis will be carried out for the given internal pressure using Finite Element Methods. Standard packages like CSA-NASTRAN, SOLID MODELLING will be used for the analysis. The optimum fibre orientation, lay-up sequence and cylinder geometry will be determined.

STAGE 111-FABRICATION AT NAL, BANGALORE

Polar filament winding machine at NAL is suitable to fabricate sample cylinders. The facilities at NAL will be hired for fabrication of 50 prototype cylinders designed by MIT. 30 aluminium liners will be imported and 20 steel liners will be procured locally.

STAGE IV-TESTING AT SEPL'S SITE AT MANAMADURAI

Critical equipment to carry out acceptance test as per international standard will be installed. The prototype cylinders fabricated at NAL will be tested as per standards and norms of DoT, USA, TUV, Germany and HSE, UK to arrive at the ideal prototype of the CNG refill cylinder for commercial production.

STAGE V-COMMERCIAL PRODUCTION

Install complete plant and machinery for commercial production at SEPL's site at Manamadurai and produce stipulated batches of cylinders for acceptance test as per international standards…"

41. Even though the completion of aim of the Project depends on commercialisation of the same, the "development of technology" is not dependent upon the same. Development of the technology is a separate stage, prior to, the commercial production. Once the AMC has declared the development of technology as successful in terms of the Clause VIII of the TDA, the repayment becomes due to the TIFAC in terms of Clause IX of the TDA.

42. The contention of SEPL that the AMC could not have been treated as a final authority to decide the successful completion of development of technology, to my mind does not hold merit. Upon perusal of the terms of the TDA above, more specifically Clause VIII, it is clear that it was the AMC that had the sole jurisdiction to certify whether the development of technology was a success or not. The same was decided in favour of TIFAC in the 5th AMC meeting and never challenged by SPEL.

43. Moreover, SPEL submitted the cheques which were for the repayment in terms of Clause IX of the TDA. The same is evident from the findings of the AMC in the 6th meeting. It was clearly noted by the AMC that SEPL would be able to supply the composite cylinders commercially only from February 2003 but the repayment had to begin from January 2003. In furtherance of the said findings, SEPL submitted 12 post-dated cheques. SPEL never challenged the findings of the 5th

and 6th meeting rather submitted the cheques. It was by conduct that SEPL has acquiesced to the same.

44. As per the list of machinery given in the TIFAC project proposal under TPMM on advanced composites, the machine was an important part of completion of project, but the same cannot be seen in isolation. The conjoint reading of the minutes of the meeting and the terms of the TDA and proposal, it is evident that the technology had been developed and the said machinery was important for the commercialisation of the cylinders.

45. The Arbitrator has totally ignored Clause IX. The 5 stages of the Project as stated in the detailed technical description, can be bifurcated into 3 parts. Firstly, development of technology, secondly, testing and thirdly, commercialisation. Clause IX has mandated repayment to be made at the stage to the technology being declared as successful by the AMC. Commercialisation may not have been achieved but mandate of Clause IX has squarely been achieved. The technology has been declared successful by AMC on the statement of Mr. Vishwanath, Managing director of SEPL. The Arbitrator, by holding that commercialisation has not been achieved hence no payment is to be made has totally ignored the ambit and scope of Clause IX of the TDA.

46. In view of the above analysis, I am of the considered opinion that, the finding of the Arbitrator that the development of technology is not successful until the commercial viability is achieved is contrary to the specific terms of the TDA. The interpretation that the repayment obligation becomes due only when the commercialisation of the project begins, is not borne out of the terms of the contract in question, i.e.

TDA.

47. No doubt the Arbitrator has the power to interpret the terms and conditions of the contract, but, the Arbitrator being the creature of the contract, does not have the power to substitute, supplement, alter or modify the terms of the contract. It is the solemn responsibility of the Arbitrator to adjudicate and decide the disputes while staying in the circumscribing limits of the provisions of the contract between the parties while also upholding the terms of the contract. Reliance is placed on ***Sepco Electric Power Construction Corpn. v. Kamalanga Energy Ltd.***[5] The relevant paragraphs read as under:

> *"91. Numerous precedents laid down by this Court have often emphasised that an arbitrator lacks the power to deviate from or to reinterpret the terms of the contract while making an award. The awards must be within the parameters of the agreement entered between the parties.*
>
> *92. This Court in Saw Pipes (supra) has reiterated that any deviation from the mandate of Section 28 Sub-Section 3 of the 1996 Act is a valid ground for lambasting an arbitral award. Commenting on the duty of the arbitrators, this Court observed as follows:*
>
> > *"73. It is to be reiterated that it is the primary duty of the arbitrators to enforce a promise which the parties have made and to uphold the sanctity of the contract which forms the basis of the civilized society and also the jurisdiction of the arbitrators. Hence, this part of the*

[5]2025 SCC OnLine SC 2088.

award passed by the Arbitral Tribunal granting interest on the amount deducted by the appellant from the bills payable to the respondent is against the terms of the contract and is, therefore, violative of Section 28(3) of the Act."

....

94. Further clarification of this proposition is brought about through observations of this Court in a further decision by 3-Judge Bench in Union of India v. Bharat Enterprise wherein it was underlined that the existence and powers of an arbitrator are a creature of the agreement between the parties, and it is the terms of the contract which serves as a fundamental basis for the procedure to be adopted by the arbitral tribunal. Therefore, the concerned arbitrator is restricted to the terms of the contract thereof and cannot go outside its scope or what is, per se, specified. In words of the Bench, "A disregard of the specific provisions of the contract would incur wrath of the Award being imperiled. This position cannot be in the region of dispute."

48. As per Section 34 (2A) of the 1996 Act, the Award can be set aside if the Award is vitiated by patent illegality. An Award contrary to the terms of the contract falls within the preview of patent illegality.

49. A bare perusal of the above discussion clearly brings out the following:

i. Under the TDA the Arbitrator the could not sit in Appeal over the decision of the AMC. The AMC was the competent authority to decide if the if the development of technology was successful or

not.

ii. The project was for successful development of technology for composite refill cylinders for compressed natural gas. Commercialisation was an incidence of successful development of technology.

iii. The contract aimed at commercial viability of the project for which the machine was an important requirement.

iv. The repayment obligation of SEPL in terms of Clause IX commenced from the date of declaration of successful development of technology.

50. Hence, it would be apposite to conclude that the Award is vitiated by patent illegality. The Arbitrator has gone behind the terms of the TDA and rewritten the contract. Reliance is placed on ***PSA Sical Terminals (P) Ltd. v. V.O. Chidambranar Port Trust***[6]**,** wherein it was held that the Award is liable to be set aside on the ground of patent illegality if the Arbitrator has rewritten the terms of the contract. The relevant paragraphs read as under:

> *85. As such, as held by this Court in Ssangyong Engg. & Construction Co. Ltd. [(2019) 15 SCC 131: (2020) 2 SCC (Civ) 213], the fundamental principle of justice has been breached, namely, that a unilateral addition or alteration of a contract has been foisted upon an unwilling party. This Court has further held that a party to the agreement cannot be made liable to perform something for which it has not entered into a contract. In our view, rewriting a contract for*

[6](2023) 15 SCC 781.

the parties would be breach of fundamental principles of justice entitling a court to interfere since such case would be one which shocks the conscience of the court and as such, would fall in the exceptional category.

86. We may gainfully refer to the following observations of this Court in Bharat Coking Coal Ltd. v. Annapurna Construction [(2003) 8 SCC 154]: (SCC pp. 161-62, para 22)

> *"22. There lies a clear distinction between an error within the jurisdiction and error in excess of jurisdiction. Thus, the role of the arbitrator is to arbitrate within the terms of the contract. He has no power apart from what the parties have given him under the contract. If he has travelled beyond the contract, he would be acting without jurisdiction, whereas if he has remained inside the parameters of the contract, his award cannot be questioned on the ground that it contains an error apparent on the face of the record."*

87. *It has been held that the role of the arbitrator is to arbitrate within the terms of the contract. He has no power apart from what the parties have given him under the contract. If he has travelled beyond the contract, he would be acting without jurisdiction.*

89. *It has been held that an Arbitral Tribunal is not a court of law. Its orders are not judicial orders. Its functions are not judicial functions. It cannot exercise its powers ex debito*

justitiae. It has been held that the jurisdiction of the arbitrator being confined to the four corners of the agreement, he can only pass such an order which may be the subject-matter of reference.

90. *In that view of the matter, we are of the considered view, that the impugned award would come under the realm of "patent illegality" and therefore, has been rightly set aside by the High Court."*

51. The various directions to make payments by TIFAC and SEPL are based out of a common finding that the Project had not achieved success as the technology was not commercialised and hence no repayment is required to be made. In view of my discussion above, the said finding is patently illegal as it is contrary to the terms of the TDA. All the other findings given by the Arbitrator are interconnected and not severable in nature. Hence, the Award is set aside.

SEPL'S Challenge to the Award (O.M.P (COMM) 128 /2021)

52. Though in the prayer, SEPL challenged finding Nos. 3,4, and 6, in the arguments, the challenge was restricted to finding No. 6, which reads as under:

"6. SEPL could have utilized plant and machineries acquired under the project to manufacture some products of their own business interest and thereby contributing to the national economy as well. They did not do so. SEPL is asked to pay back 10% of Rs 280 lakhs of tax-payers money (channelized through TIFAC) that is Rs 28 lakhs to TIFAC in two three-monthly instalments."

53. Since the Award itself is set aside, the finding No. 6 also is set aside and O.M.P. (COMM.) 128 of 2021 becomes infructuous.

CONCLUSION

54. Consequently, the petitions are allowed and Arbitral Award dated 14.12.2019 is set aside.

55. Pending applications, if any, also stand disposed of.

JASMEET SINGH, J

DECEMBER 20th , 2025/(MU)