

Government of India
Department of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers
Shastri Bhawan, New Delhi

**Petrochemicals Research &
Innovation Commendation
Guidelines**

(Released: January, 2023)

CODE OF PROCEDURE

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Section-I: Introduction

1. Petrochemicals comprise of plastics and most of other chemicals as downstream hydrocarbons derived from crude oil and natural gas. These hydrocarbons are a valuable resource and constitute vital raw-materials in industry. The value added petrochemical products all along the value chain cater to the needs of textiles and clothing, agriculture, packaging, infrastructure, healthcare, furniture, automobiles, information technology, power, electronics, telecommunications etc. Government of India announced the National Policy on Petrochemicals in April 2007. The policy envisioned the following:
 - I. Development of value added, quality petrochemical products at globally competitive prices using eco-friendly processes and technologies.
 - II. Innovation of newer application and products with focus on sustainable development.
2. The vision of the Department is to be achieved through promotion of Research and Development and Human Resource Planning and Development. Towards furtherance of this objective, the policy envisages institutionalization of Petrochemicals Research & Innovation Commendation Scheme.
3. The level of R&D investments in Indian Petrochemicals sector is low at around 0.3% of total sales. The areas for strengthening of R&D in Petrochemicals Industry include improvements in manufacturing process for reduction in cost of production, application development to diversify demand, and new product development. Currently the expenditure on R&D in the Petrochemical sector is less than 1% of industry turnover. This needs to be increased in phases to 2 to 3%. India has a highly trained manpower base. However, as per world industry estimates, inadequate R&D infrastructure is a constraint for attracting investment in innovation. Ultimately, India stands to lose out in the world of polymer and plastic market if low-cost-high-return programmes are not implemented by the government.
4. The future Research & Development vision of the Petrochemical industry needs to provide long term commitment to investment in R&D and strive for continuous innovation in terms of raw material usage, energy efficiency, process/operation improvement, technology forecasting and adoption of emerging technologies, in particular on recycling technologies and development of recycled products etc. It is also felt that new process technologies for high performance polymers (green processes etc.), thrust on new platforms, bio-nano sciences as enablers for advanced polymeric materials are the need of the hour. At the same time R&D thrust in development of moulds, dies and tools cannot be over emphasized. Collaborative investment through Public Private Partnership (PPP) mode in

technology development by Government, academic Institutions and Industry could push the agenda for R&D in this sector, which will have a long term impact on the Industry.

5. The Petrochemical sector is a key sector of the global (and Indian) economy. At the same time there are public apprehensions about the adverse impact of plastics on environment and health. This concern needs to be addressed by being at the forefront of technology development in this sector as also to enhance the pace of innovation in this field. This on the one hand, would create pressures that would motivate companies to innovate and on the other hand, the environmental concerns will guide sustainable product and process interventions.

Section-II: Petrochemicals Research & Innovation Commendation Scheme

1. With the above mentioned objectives, Government of India, Department of Chemicals & Petrochemicals has decided to set up a Petrochemicals Research & Innovation Commendation Scheme to felicitate the meritorious innovations and inventions in the field of petrochemicals, products, processes and other areas of national and social importance. The various applications of petrochemicals has already penetrated in all walks of life including various manufacturing sectors for conservation of natural resources and energy efficiency etc.
2. This Petrochemicals Research & Innovation Commendation Scheme will motivate the inventors to carry out innovative Research & Development in the areas of petrochemicals and allied industry, which in turn will improve performance / quality of the existing product. This Scheme will be on outstanding contribution in R&D leading to better energy consumption, better plastic waste management, increase in product life cycle, development of innovative new products, quality standards, recycling and other emerging areas.
3. The Scheme is also intended to enhance innovative capacities to a level of international recognition. The ultimate objective is to develop and maintain the petrochemical industry as a globally competitive industry using eco-friendly processes & technologies.
4. This scheme will help improve the performance of the existing product and its quality leading to better acceptance and increase in demand of the product in the competitive market of petrochemicals. This will benefit both small and medium enterprises as well as larger companies.
5. Applicant has to apply online for the commendation under any category/sub-category as per prescribed applicable formats separately for Individual /Team/ Industry/ Academic Institution / R&D Institution/ MSME. (Annexures attached).

Section–III: Eligibility for the scheme

1. The scheme is open to all Indian citizens/institutions/industries/ organisations/ Start-up registered in India or created by the Central/ State governments/ Union Territories.
2. In case of a team or group, the maximum number of the applicants in a team/group in any particular Application should not be more than five.
3. The innovation should either be an original product, process or an improvement on existing product or process so as to increase utility of the product or process by enhancing consumer advantages, accuracy, reliability, safety, product life, versatility, etc. Mere theoretical hypothesis, innovation simply in the idea stage and perpetual motion machines are not eligible for consideration of an award.
4. The innovation should be not older than three years, at the time of submitting the application.
5. Awardees of previous editions of the National Petrochemicals Awards will be deemed ineligible to participate in the Commendation Scheme for the next three editions/years.

Section-IV: Periodicity of the Scheme

1. The Commendations shall be conferred annually.

Section-V: Implementation Framework & Operational Modalities

1. The entry applications for Commendations will be screened and evaluated by the Screening Committee. The Screening Committee will be headed by Joint Secretary (Petrochemicals) with DG/Director of the implementing agency as Member Secretary. The Screening Committee will have representation from National Level Academic Institutions / Research Laboratories, National Level Industry Associations, Expert Committee and representatives from Government of India and the members will be nominated by the Department.
2. Evaluations report of the Screening Committee will be placed before the Commendation Approval Committee (CAC), which would be chaired by Secretary (Chemicals & Petrochemicals). The members of this Committee will be experts from Industry & Academia working in the petrochemicals and allied sectors. The names recommended by Screening Committee may be asked to present their innovation/project etc. before the Commendation Approval Committee. The CAC would then submit its recommendations on recipients for final approval of Minister (Chemicals & Fertilizers).

3. The Scheme will be implemented by the Department in coordination with the PSU or Autonomous Bodies of the Department.

Section–VI: Categories for the Commendations

1. Commendations will be given to felicitate the meritorious innovations and inventions in two major categories which are further divided into nine & three sub-categories respectively. The details of the categories are as mentioned below:

I. Research & Innovation in Polymers

- a) Innovation in Polymeric Materials & Products
- b) Innovation in Green Polymeric Materials & Products
- c) Innovation in Packaging Techniques including creative Design
- d) Innovation in Polymer Processing Machinery, Equipment's, Robotics & Automation
- e) Innovation in Polymer Waste Management
- f) Innovation in Packaging Techniques including creative Design
- g) Petrochemicals and Newer polymer Applications
- h) Research in the field of Polymer Science & Technology (for Research Students of Academic Institute/Research lab)
- i) Innovative “Start-up” venture in Polymer field

II. Application of Polymers in Various Fields

- a) Polymers in Agriculture and Water Conservation
- b) Polymers in Medical and Pharmaceutical Applications
- c) Polymers in other fields

Section–VII: Presentation Ceremony

1. The Presentation Ceremony, as far as possible, shall be presented at New Delhi at a special ceremony/function.
2. The recipients shall be invited to receive the awards in person. TA/DA will be provided to awardees for attending the function.
3. The Commendations shall be presented every year in the categories (Section VI of these guidelines) to an individual/team/institution/industry for outstanding contribution in the field of petrochemicals and allied sectors which has created significant impact in the country. The Commendation shall carry a citation and a memento for each category.

Section–VIII: Sample Format of Application



Petrochemicals Research & Innovation Commendation

Department of Chemicals & Petrochemicals,
Ministry of Chemicals & Fertilizers, Govt. of India

SAMPLE APPLICATION

Categories (With Sub Categories)

(An applicant can submit a maximum of two applications in each of the two Categories)

Kindly tick whichever is applicable

I. Research & Innovation in Polymers

- a. Innovation in Polymeric Materials & Products
- b. Innovation in Green Polymeric Materials & Products
- c. Innovation in Packaging Techniques including creative Design
- d. Innovation in Polymer Processing Machinery, Equipment's, Robotics & Automation
- e. Innovation in Polymer Waste Management
- f. Innovation in Packaging Techniques including creative Design
- g. Petrochemicals and Newer polymer Applications
- h. Research in the field of Polymer Science & Technology (for Research Students of Academic Institute/Research lab)
- i. Innovative "Start-up" venture in Polymer field

II. Application of Polymers in Various Fields

- a. Polymers in Agriculture and Water Conservation
- b. Polymers in Medical and Pharmaceutical Applications
- c. Polymers in other fields

1. Applicant's Name and Address (Enclose separate sheet, if necessary)

Name (with prefix Mr/ Ms/ Mrs/Dr) In English & Hindi	Gender	Mobile No. & Email Id	Academic Qualification	Designation & Department Name of the Industry /Academic / R&D Institution with address	Aadhaar No.	*Primary Applicant

(*Note: In case, the award is required in the name of the company, please fill the company name as Primary Applicant)

2. Title of Innovation

3. Brief highlight about the innovation

(Write-up not exceeding 250 words/enclose separate sheet as Annexure:1)

4. Details of Head of the Industry/ Academic /R &D Institution:

Name (with prefix Mr/ Ms/ Mrs/ Dr) & Gender	Mobile No & Email Id	Designation	Name & type of organization (Prop./Partnership/Pvt. /Public Ltd./Govt. Public Sector /Autonomous, etc.,) with address	Annual Turnover (in Rs. Cr)

5. Stage of Development

(Tick whichever is appropriate)

- i. Lab Scale
- ii. Pilot Plan
- iii. Working Prototype
- iv. Test Marketing
- v. Full Scale Operation

- 6. Detailed Technical Description** (giving its constructional and working mechanism along with photographs)
(Write-up not exceeding 250 words/ enclose separate sheet as Annexure: 2)
- 7. Principle Involved**
(Write-up not exceeding 250 words /enclose separate sheet as Annexure:3)
- 8. Originality/ Novelty of Innovation**
(Write-up not exceeding 250 words/enclose separate sheet as Annexure: 4)
- 9. Advantages over known Alternatives**
(Write-up not exceeding 250 words/enclose separate sheet as Annexure: 5)
- 10. Status of Publication/Patent in India and Abroad**
(Please provide details in enclose separate sheet as Annexure: 6)
- 11. Test report to substantiate claims from reputed Govt. Institute/ Govt. recognized NABL Test Agency:**
(Please provide details in enclose separate sheet as Annexure:7)
- 12. Users' Report/ Field trails:**
(Write-up not exceeding 250 words/enclose separate sheet as Annexure: 8)
- 13. Status of Commercialization & Industrial Collaboration:**
(Write-up not exceeding 250 words/enclose separate sheet as Annexure: 9)
- 14. Self-Appraisal by the applicant giving full justification for the commendation:**
(Write-up not exceeding 250 words/enclose separate sheet as Annexure:10):

15. Particulars of previous awards won by applicant (individual/ team) (if any).

Sl. No.	Name of the recipient of the award	Name of Award	Category of Award	Whether in Individual capacity or in a team/ group	in year of award
1					
2					

16. Particulars of business/ collaboration with AB/ PSU of the Department

(AB: CIPET/ IPFT, PSU: HIL/HOCL/HFL)

Sl. No.	Name of AB/ PSU	Brief of work
1		
2		

17. Action plan for next 3 years in respect of implementation / commercialization of the innovation

**Petrochemicals Research & Innovation
Commendation**

CERTIFICATE OF UNDERTAKING

Category:

Title of Innovation:

I / We have read and fully understood the terms and conditions & the eligibility criteria and fulfill the same. I / We also understand that mere fulfillment of eligibility criteria does not entitle me / us for the commendation. Further, the information provided by me / us is true and correct to the best of my / our knowledge and beliefs. If any information provided above is found incorrect/false application may be summarily rejected without giving any reason.

Signature of the Applicant with date

Name:

Mobile No.:

Email ID:

Signature of the Head & Seal

Name:

Mobile No.:

Email ID: