



Nayara Energy Secures New Patent to Enhance Kerosene Quality through Innovative Refining Techniques

Nayara Energy Sets New Benchmarks in Kerosene Refining Technology

Mumbai, August 12th, 2024– Nayara Energy Limited, one of India’s leading integrated downstream oil companies and the fastest-growing private fuel network, has successfully patented an innovative process aimed at significantly improving the quality of kerosene-type petroleum distillates through a novel adsorbent technique. This breakthrough enhances the marketability and stability of petroleum products, including mineral turpentine oil, aviation turbine fuel, superior kerosene oil and petroleum solvents.

The patent, designated as Indian Patent No. 545797, details a cutting-edge process to refine kerosene-type petroleum distillates, addressing persistent challenges related to quality of product’s color and its stability. This invention improves and stabilise the Saybolt color—a critical quality parameter that impacts the perception and application of product—while simultaneously reducing organic nitrogen and moisture content.

Nayara Energy’s innovative process comprises of a simple three-step approach:

Adsorption Treatment: Kerosene-type petroleum distillate is passed through an adsorbent bed, effectively enhancing the Saybolt color and stability while reducing undesirable contaminants.

Hydrocarbon Recovery: Spent adsorbent is treated with water to recover surface hydrocarbon content, minimizing environmental impact and optimizing resource recovery.

Regeneration of Adsorbent: The spent adsorbent undergoes thermal oxidation to restore its efficacy for further use, making the process both sustainable and cost-effective.

The flow of operations can be easily adjusted to accommodate various processing conditions, providing refineries with a flexible and efficient solution to improve product quality.

Commenting on this achievement, Amar Kumar, Head of Refinery, Nayara Energy said; ***“This patent is a significant milestone for Nayara Energy as it underscores our commitment to innovation that not only enhances product quality but has set a new benchmark within the industry. We are excited to share this advancement and look forward to collaborating with partners in the refining sector to implement this process effectively.”***

Over the years, Nayara Energy has emerged as a prominent downstream energy player, making substantial contributions to India’s energy security and bolstering its position as a key player in India’s energy sector.

About Nayara Energy: Nayara Energy is a new-age downstream energy and petrochemicals company with a formidable presence spanning across the entire hydrocarbon value chain, from Refining to Retail. Nayara Energy operates in India for India driven by a relentless commitment to fuel the nation's energy aspirations. At the heart of our operations lies the Vadinar refinery, India's second-largest single-site refinery with a capacity of



20MMTPA. With over 6,500 Retail Outlets, we cater to the need for reliable and safe mobility across the length and breadth of the country. We have adopted a phase wise asset development strategy to enter the petrochemicals sector which will be a significant step in our crude to chemicals journey. Through sustainable development projects in Health and Nutrition, Education and Skill Development, and Sustainable Livelihoods, Nayara Energy enhances the quality of life in the communities it operates in. Delivering value for all our stakeholders is at the very core of our beliefs and we are committed to providing the energy that fuels the dreams of our employees, customers, partners and communities.

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