

INDUSTRIAL CASE STUDY

Catalyst Recovery from Spent FCC Catalyst

via Continuous Thermal Cracking & Regeneration System — 1.5 Tonne Per Hour Capacity

Designed, Engineered & Validated by KERONE Engineering Solutions Limited

1.5 TPH | 650 degC PROCESS TEMP. | 45 min RESIDENCE TIME | 96.4% COKE BURN-OFF | 68 MAT ACTIVITY RECOVERED
| ~2.1 Yrs PAYBACK

PROJECT REFERENCE DETAIL	
Client Organisation	Suvarna Petrochemicals Ltd. — Integrated refinery & petrochemical processor
KERONE Reference	KRDC/ICS/CatalystRecovery/2025-04 Based on KRDC Lab Report 62/KRDC/LAB/09
Technology	Continuous Rotary Kiln Thermal Cracking & Catalyst Regeneration System
Feedstock	Spent FCC Catalyst (deactivated zeolite catalyst from thermal/catalytic cracking unit) — 8.7% Coke on Catalyst (as-received)
Product Output	Regenerated FCC-Grade Catalyst — MAT Activity 71, BET Surface Area 148 m2/g
Plant Location	Client refinery site — Inline with existing FCC unit spent-catalyst handling
Document Date	July 2026 Validated on KRDC Lab Data — March 2026

Refining & Petrochemicals | Spent Catalyst Regeneration | Thermal Cracking | Circular Resource Recovery | Industrial Sustainability

Executive Summary

Suvarna Petrochemicals Ltd., an integrated refinery and petrochemical processor, generates substantial volumes of spent Fluid Catalytic Cracking (FCC) catalyst from its thermal cracking operations. This deactivated catalyst — carrying 8.7% coke deposition and severely diminished cracking activity — is conventionally discarded or sold as low-value construction filler, representing a significant loss of recoverable catalytic value and a rising disposal liability.

KERONE Engineering Solutions Limited was engaged to design, validate, and specify a continuous thermal cracking and catalyst regeneration system capable of restoring spent FCC catalyst to a reusable, activity-qualified grade — at a throughput of 1.5 Tonnes Per Hour (1.5 TPH).

Following structured laboratory validation at KRDC using a controlled rotary kiln simulator at 650 degrees C across multiple hold times (20 min, 45 min, 90 min), the optimal industrial process envelope was established. The KERONE continuous rotary kiln regeneration system — operating at 650 degrees C with a 45-minute material residence time under controlled-air combustion atmosphere — delivers coke-on-catalyst reduction from 8.7% to below 0.35%, and Micro Activity Test (MAT) recovery from 42 to 71.

Key Performance Summary

KPI	Raw Feedstock (Baseline)	After KERONE Processing (1.5 TPH Plant)	Improvement
Coke on Catalyst	8.7%	< 0.35%	96% reduction
MAT Activity Index	42	71	69% increase
BET Surface Area	65 m2/g	148 m2/g	128% increase
Apparent Bulk Density	0.98 g/cc	0.84 g/cc	Restored to fresh-catalyst range
Market Value (Catalyst Grade)	INR 4,000-6,000/t (filler-grade)	INR 28,000-38,000/t (regenerated FCC substitute)	6-7x price premium
Annual Revenue/Savings Potential	INR 3.0-4.3 Cr/yr	INR 20-27 Cr/yr at 7,200 hr/yr operation	-

Challenge, Solution & Outcome

- **CHALLENGE:** Spent FCC catalyst with 8.7% coke deposition and MAT activity of only 42 — viable only as low-value filler at INR 4,000-6,000/tonne.
- **KERONE SOLUTION:** Continuous 1.5 TPH rotary kiln thermal cracking and regeneration system at 650 degrees C, controlled-air atmosphere, 45-min residence — validated from KRDC lab trials.
- **OUTCOME ACHIEVED:** Regenerated catalyst with 71 MAT activity, <0.35% residual coke — commanding INR 28,000-38,000/tonne as an FCC-grade catalyst substitute.

Industry Context & The Business Challenge

India's refining sector processes over 250 million tonnes of crude annually across FCC and thermal cracking units, generating an estimated 180,000-220,000 tonnes per year of spent catalyst requiring replacement or disposal. Spent FCC catalyst accumulates coke deposits and loses zeolitic surface area during service, eventually falling below the activity threshold required for economical cracking yields.

The global catalyst regeneration and recovery market is valued at approximately USD 620 million and is projected to grow steadily through 2030, driven by refinery cost-reduction mandates and tightening solid-waste disposal regulations that discourage landfilling of spent catalyst. However, the critical barrier for Indian refiners and petrochemical processors is that regeneration requires precise thermal control — insufficient burn-off leaves residual coke that poisons activity, while excessive temperature or residence time causes irreversible zeolite structure collapse and metal sintering.

The Commercial Problem — Why Spent Catalyst Has Low Value

Quality Parameter	Spent Catalyst (Suvarna Petrochemicals)	Market Requirement (Regenerated FCC Grade)	Gap
Coke on Catalyst	8.7%	< 0.5%	FAIL — 17x over limit
MAT Activity Index	42	> 65	FAIL — 35% below requirement
BET Surface Area	65 m2/g	> 130 m2/g	FAIL — insufficient porosity
Market Price Realised	INR 4,000-6,000/t	INR 28,000-38,000/t	6-7x revenue gap

Table 1: Spent catalyst quality parameters vs market specification for regenerated FCC catalyst | Source: KRDC Analysis & internal refinery catalyst specifications

Revenue Opportunity — Recovering Value from an Existing Waste Stream

The Opportunity: At 1.5 TPH throughput operating 300 days/year (7,200 hours), the annual feedstock volume is approximately 10,800 tonnes of spent catalyst. At current spent-catalyst disposal/sale prices of INR 5,000/tonne, this generates INR 5.4 Cr/year. Post-processing with KERONE's system, the same volume as regenerated FCC-grade catalyst at INR 32,000/tonne generates INR 34.6 Cr/year — a revenue increase of over INR 29 Cr annually, from an existing refinery waste stream.

About Suvarna Petrochemicals Ltd.

Suvarna Petrochemicals Ltd. is an integrated refining and petrochemical processor with crude processing capacity exceeding 4 million tonnes per annum. Their operations span atmospheric and vacuum distillation, fluid catalytic cracking, and downstream polymer production — positioning them as an ideal anchor client for KERONE's catalyst regeneration technology. The KRDC trial was conducted on Suvarna's actual spent FCC catalyst (25 kg sample, dispatched 14 March 2026) to ensure industrial relevance of all process parameters.

Process Validation — From KRDC Lab to Industrial Scale

KERONE's engineering approach mandates laboratory-scale validation before any industrial system specification. The KRDC (Kerone Research & Development Centre) conducted a structured experimental programme on Suvarna Petrochemicals' actual spent FCC catalyst over 7 days (10-16 March 2026), using a precision rotary kiln simulator to establish the process envelope that informs the 1.5 TPH industrial plant design.

KRDC Experimental Programme — Key Findings

Test Condition	Hold Time	Residual Coke	MAT Activity	Assessment
Control (no hold)	0 min	< 0.5%	42 (baseline)	Baseline — spent catalyst
Short hold	20 min	~3.1%	54	Insufficient — residual coke poisons activity
OPTIMAL	45 min	0.32%	71	Optimal for FCC-grade regeneration
Extended hold	90 min	0.11%	63	Over-processed — zeolite sintering reduces activity

Table 2: KRDC Laboratory Results — 650 degrees C rotary kiln trials on Suvarna Petrochemicals spent FCC catalyst | KRDC Test Report 62/KRDC/LAB/09 | MAT activity per ASTM D3907

The 90-minute extended hold demonstrates a critical process constraint: while residual coke continues to fall with additional residence time, MAT activity peaks at the 45-minute mark and then declines — confirming that prolonged high-temperature exposure begins to sinter the zeolite framework and reduce surface area. This non-monotonic relationship is the central engineering insight validated at KRDC and is why residence time control (not simply maximizing burn-off) is the primary design driver for the industrial kiln.

Scale-Up Methodology — Lab to 1.5 TPH

KERONE's scale-up process follows a structured engineering framework where laboratory parameters are translated to industrial equipment specifications using validated thermal engineering models. The key translation factors for this project are:

Parameter	KRDC Lab (Kiln Simulator)	Industrial Plant (1.5 TPH Rotary Kiln)	Scale-Up Factor
Treatment Temperature	650 degrees C	650 degrees C	1:1 (direct)
Optimal Hold Time	45 min	45 min residence time	1:1 (direct)
Throughput	~15 g/run	1,500 kg/hr	100,000:1
Atmosphere	Controlled air / N2 (selectable)	Controlled-air combustion, staged O2	Adapted
Ramp Rate	4.0 degrees C/min	Zone-controlled (4 zones)	Adapted
Heating Mode	Batch (static)	Continuous rotary drum	Configuration change
Cooling	Natural (in-kiln)	Active air-jacketed cooler	Enhanced
Feed System	Manual loading	Screw conveyor + auto control	Automated

Industrial Plant Design — 1.5 TPH Continuous Processing System

The KERONE continuous thermal cracking and regeneration system processes spent FCC catalyst through six integrated process stages, from feedstock intake to bagged, activity-qualified regenerated catalyst, with continuous emission monitoring throughout.

System Architecture — Major Process Units

Unit / Section	Equipment	Design Parameters	Function
U-01: Feed Preparation	Rotary Vibro Screen + Belt Conveyor	125 mm mesh 1,650 kg/hr rated	Remove tramp fines and oversized agglomerates; ensure uniform particle feed to kiln
U-02: Pre-drying (if reqd.)	Indirect Hot-Air Dryer (optional bypass)	110 degrees C Reduce feed moisture to <1.5%	Minimise steam generation inside kiln; improve thermal efficiency
U-03: Rotary Kiln (Primary Process Unit)	KERONE Continuous Rotary Kiln	1,650 kg/hr capacity 650 degrees C 45 min residence L/D = 14:1 Controlled-air atmosphere 4-zone heating	Core thermal processing — coke burn-off, catalyst activity restoration
U-04: Combustion Air System	Forced-Draft Air Blower + O2 Trim Control	Staged O2: 2-6% Flow: 150 Nm3/hr	Controlled coke combustion; prevents thermal runaway and zeolite sintering
U-05: Off-gas Treatment	Afterburner / Thermal Oxidiser + Cyclone	900 degrees C afterburner 2-sec residence Cyclone for entrained fines	Combust CO-rich off-gas from kiln; recover entrained catalyst fines
U-06: Cooling Zone	Jacketed Rotary Cooler (Air-cooled)	Inlet: 650 degrees C Outlet: <90 degrees C 1,500 kg/hr	Cool regenerated catalyst before exposure to ambient handling
U-07: Product Handling	Screw Conveyor + Big Bag Filler	Stainless steel contact parts Load cell-based auto filling	Transfer cooled catalyst to storage bags; prevent contamination and dusting
U-08: Emission Control	Pulse-jet Bag Filter + Induced Draft Fan	Efficiency: >99.9% PM < 30 mg/Nm3 Compliant: CPCB Stack Norms	Capture fine catalyst dust from cooler and handling; zero visible emissions
U-09: Process Control	PLC/SCADA Control Panel	Siemens S7 / Allen Bradley Remote monitoring capable	Automated temperature, O2 trim, residence time and atmosphere control; data logging

Table 3: Process Unit Descriptions — KERONE 1.5 TPH Continuous Catalyst Regeneration Plant | U-03 (Rotary Kiln) is the primary process unit; all others are ancillary

Core Equipment Specification — KERONE Rotary Kiln

The KERONE Continuous Rotary Kiln is the heart of the catalyst regeneration system. Designed and manufactured in-house at KERONE's Ambernath facility, it directly scales the validated laboratory parameters from KRDC trial 62/KRDC/LAB/09 to industrial throughput while maintaining the identical thermal profile, residence time, and staged-oxygen combustion control that produced the 71 MAT activity result.

ROTARY KILN — CORE SPECIFICATIONS	
Design Throughput	1,650 kg/hr (spent catalyst input)
Operating Temperature	650 degrees C (max design: 850 degrees C)
Residence Time	45 min (adjustable 20-90 min via RPM)
Tube Dimensions	ID 700 mm x L 9,800 mm (refractory-lined alloy steel)
Heating Zones	4 independent electric/gas heating zones
Atmosphere	Staged combustion air O2 trim 2-6%
Drive System	VFD-controlled 9 kW gear motor
Installed Power	~168 kW (total connected load)
Shell Material	MS with high-alumina castable refractory lining
Insulation	Ceramic fibre blanket — 175 mm
Sealing	Carbon-ring mechanical seals (gas-tight)

KERONE Rotary Kiln specification — industrial unit scaled to ID 700 mm x 9,800 mm L

Utilities & Ancillary Requirements

Utility	Specification	Consumption (at 1.5 TPH)	Source
Electrical Power	415V, 3-phase, 50Hz	~168 kW connected ~128 kW avg demand	Site utility
Combustion Air	Ambient, filtered, forced-draft	150 Nm3/hr (kiln + afterburner)	Site air blower
Cooling Air	Ambient, forced draft	8,000 Nm3/hr	Site fan
Compressed Air	6 bar dry instrument grade	18 Nm3/hr	Air compressor (site)
Space Requirement	Building / covered area	L 34m x W 13m x H 8m	New shed or existing bay

Emission Compliance

Emission Point	Pollutant	Expected Level	CPCB / MoEF Limit	Status
Kiln off-gas (after afterburner)	PM10	< 22 mg/Nm3	50 mg/Nm3	COMPLIANT
Kiln off-gas	CO	< 80 mg/Nm3	100 mg/Nm3	COMPLIANT
Cooling + handling (bag filter outlet)	Catalyst Dust	< 25 mg/Nm3	50 mg/Nm3	COMPLIANT

Mass Balance & Energy Analysis — 1.5 TPH Operation

Detailed Mass Balance — Per Hour at Full Load

Stream	Material	Flow Rate (kg/hr)	Notes
Feed (IN)	Spent FCC catalyst (as-received)	1,500	8.7% coke, 0.6% moisture, Suvarna Petrochemicals quality
Coke Burn-off	Combusted carbon (CO2/CO)	~127	~8.5% of feed at 45-min hold; passed to afterburner as flue gas
Moisture (pre-drying)	Surface moisture removal	~9	Removed in pre-dryer if feed moisture >1.5%
Product (OUT)	Regenerated FCC catalyst	~1,349	< 0.35% residual coke; MAT 71; bagged
Fines (recycled)	Cyclone + bag filter fines	~15	Collected from U-05/U-08; recycled to product or waste stream
Combustion products	CO2, H2O, trace SOx/NOx	Stack	Post-afterburner stack; meets CPCB emission limits

Table 4: Mass balance — 1.5 TPH continuous catalyst regeneration plant | Based on validated KRDC lab data scaled to industrial throughput

Energy Consumption Estimates

Energy Category	Equipment / Unit	Power (kW)	Load Factor	Consumption (kWh/tonne product)
Kiln Heating (Ramp + Hold)	Electric/gas heaters (4-zone, 168 kW total)	168	75%	~101
Drive Systems	Rotary drum drive + conveyor drives	18	80%	~10
Cooling System	Air-cooling blower + jacketed cooler	14	90%	~9
Afterburner	Thermal oxidiser (burner fuel: LPG)	LPG: 5 kg/hr	100%	~55 kWh eq.
Emission Control	ID fan + bag filter	20	85%	~14
Utilities & Controls	SCADA + lighting + misc	12	60%	~5
TOTAL		~232 kW		~194 kWh/tonne

Table 5: Energy consumption estimate — 1.5 TPH catalyst regeneration plant | Based on KERONE engineering estimates; actual values to be confirmed during detailed engineering

Product Quality Specification & Market Applications

Expected Product Specification — KERONE Regenerated Catalyst

Parameter	Test Method	Spent Catalyst (Input)	Regenerated (20-min hold)	Regenerated (45-min hold)	Fresh FCC Catalyst (Reference)
Moisture Content	IS 1350 (P-I) analogue	0.60%	< 0.4%	< 0.2%	< 0.5%
Coke on Catalyst	ASTM D5709	8.70%	~1.2%	~0.32%	< 0.5%
MAT Activity Index	ASTM D3907	42	58	71	> 65
BET Surface Area	ASTM D3663	65 m2/g	~112 m2/g	~148 m2/g	> 130 m2/g
Apparent Bulk Density	ASTM D3766	0.98 g/cc	~0.90 g/cc	~0.84 g/cc	0.80-0.90 g/cc
Product Grade	Classification	Filler-grade only	Blend-grade FCC substitute	Premium regenerated FCC	Fresh FCC catalyst

Table 6: Product quality specification — spent catalyst vs regenerated catalyst vs fresh FCC catalyst | 45-min regenerated column highlighted = recommended for high-value reuse

Market Applications for Regenerated Catalyst

- **FCC Unit Makeup Catalyst (Primary Reuse):** Refiners can blend regenerated catalyst as partial replacement for fresh FCC catalyst makeup, targeting 15-30% substitution in units with moderate metals contamination tolerance. MAT activity of 71 qualifies for this application in most conventional gasoline-mode FCC units.
- **Resid/Thermal Cracking Auxiliary Catalyst:** Non-primary cracking applications (auxiliary cracking, slurry oil upgrading) accept regenerated catalyst at intermediate activity grades. Material processed at the 20-minute hold meets this specification.
- **Cement & Construction Filler:** Lower-activity regenerated material (or reject fines) can substitute for pozzolanic filler in cement blending, given its residual alumina-silica content. Less quality-sensitive than refinery reuse; suits recycled fines as an entry-level market.
- **Metal Reclamation Feed:** Where nickel and vanadium contamination exceeds reuse thresholds, regenerated catalyst can be routed to specialised metal-reclamation processors as a concentrated feedstock, rather than landfilled as raw spent catalyst.
- **Refractory & Ceramic Applications:** The alumina-silica matrix of regenerated catalyst has potential as a filler component in refractory castables, representing a premium growth opportunity subject to further beneficiation trials.

Financial Analysis & Return on Investment

CAPEX Estimate — 1.5 TPH Plant

Cost Head	Scope	Estimated Cost (INR Lakhs)	Notes
Rotary Kiln (Primary Equipment)	KERONE supply, factory tested	24-28	FOT Ambernath; includes drive, seals, refractory lining, controls
Afterburner / Thermal Oxidiser	CO/VOC destruction, LPG fired	7-9	900 degrees C, 2-sec residence, SS construction
Combustion Air System	Forced-draft blower + O2 trim manifold	3-4	Staged O2 control, 150 Nm3/hr capacity
Cooling System	Jacketed rotary cooler + air handling	3-4	Air-cooled, SS contact parts
Emission Control (Bag filter + Cyclone)	CPCB-compliant stack system	5-6	Pulse-jet BF + cyclone + ID fan
Feed Handling & Product Packing	Belt conveyor, vibro screen, big bag filler	3-4	Load cell filling, SS contact parts
Electrical & Instrumentation	MCC panel, SCADA, cabling, transformer	6-7	PLC/SCADA by KERONE; site electrical by client
Civil & Structural	Foundation, shed, utilities connections	4-5	Client scope; KERONE to provide layout drawing
Commissioning, Training & Startup	KERONE commissioning team, 15-day site support	2-3	Includes operator training and performance test
TOTAL CAPEX		INR 57-70 Lakhs	Approx. range; detailed quote on enquiry

Table 7: CAPEX estimate — 1.5 TPH continuous catalyst regeneration plant | All figures indicative; formal quotation on receipt of detailed enquiry

Revenue & OPEX Model — Annual Basis (7,200 hr/yr operation)

Item	Basis	INR/Year (Lakhs)	Remarks
REVENUE			
Regenerated Catalyst Sales	1,349 kg/hr x 7,200 hr x INR 32,000/t	INR 3,109 Lakhs	Conservative regenerated-catalyst price; market ranges INR 28-38k/t
OPERATING COSTS			
Electricity	194 kWh/t x 10,800 t/yr x INR 8/kWh	INR 168 Lakhs	Based on INR 8/kWh industrial tariff
LPG (afterburner)	5 kg/hr x 7,200 hr x INR 100/kg	INR 36 Lakhs	Afterburner fuel; can substitute with natural gas
Combustion Air System Maintenance	Blower + O2 sensor upkeep	INR 4 Lakhs	Maintenance provision

Item	Basis	INR/Year (Lakhs)	Remarks
Labour (Operations)	4 operators/shift x 3 shifts x 12 months	INR 24 Lakhs	At INR 25,000/operator/month CTC
Maintenance & Spares	3% of CAPEX per annum	INR 20 Lakhs	Annual maintenance provision
Miscellaneous & Overheads	QC testing, consumables, admin	INR 12 Lakhs	-
NET PROFIT BEFORE TAX		INR ~2,845 Lakhs/yr	Payback ~2.1 years on INR 63L CAPEX

Table 8: Revenue & OPEX model — 1.5 TPH plant at 7,200 hr/yr | Indicative figures; actual revenue depends on catalyst market price and reuse-grade achieved

Project Execution & KERONE Scope of Supply

Implementation Timeline

Phase	Activity	Duration	KERONE Deliverable
Phase 0 Pre-Order	Technical consultation, site visit, process design freeze, commercial negotiation	4-6 Weeks	Process Design Basis (PDB), GA drawing, utility list, commercial offer
Phase 1 Engineering	Detailed engineering: mechanical, electrical, civil layout, P&ID; finalization	6-8 Weeks	Complete engineering package, vendor drawings, DFM approval
Phase 2 Procurement	Long-lead items: kiln shell, refractory, drives, combustion air system	9-11 Weeks	Material test certificates, QC inspection reports, FAT invitation
Phase 3 Fabrication	Rotary kiln fabrication, afterburner assembly, bag filter, SCADA panel	10-13 Weeks	Factory Acceptance Test (FAT) at KERONE Ambernath; client witness invited
Phase 4 Installation	Equipment erection at client site; piping, electrical, instrument hook-up	4-6 Weeks	KERONE site supervision; civil and electrical by client as per KERONE drawings
Phase 5 Commissioning	Cold trials, hot trials with spent catalyst, performance guarantee test, operator training	2-3 Weeks	Commissioning report, performance test certificate, O&M manual, training records
TOTAL PROJECT TIMELINE	Order to commercial production	~35-47 Weeks	From purchase order to first commercial output

KERONE Scope of Supply & Services

Category	KERONE Scope (INCLUDED)	Client Scope (EXCLUDED from KERONE supply)
Process Design	Process design basis, mass balance, heat & material balance, P&ID	Feedstock quality guarantee; plant operating schedule
Primary Equipment	Rotary kiln (complete), afterburner, combustion air system, rotary cooler, product handling	Feed preparation (screening/crushing) if not included in enquiry scope
Emission Control	Pulse-jet bag filter, cyclone, ID fan (CPCB compliant)	Stack height design and consent-to-operate from CPCB/SPCB
Controls	PLC/SCADA, MCC panel, all instruments and field wiring	DG set, main power supply connection, transformer
Civil & Structural	Foundation load drawings, GA layout, anchor bolt drawings	All civil work, sheds, platforms, ladders, drains
Commissioning	FAT, site commissioning, performance test, operator training (15 days)	Consumables (LPG, air) for commissioning; feedstock for trials

Category	KERONE Scope (INCLUDED)	Client Scope (EXCLUDED from KERONE supply)
Documentation	P&ID, GA drawings, O&M manual, spares list, test certificates	Client-side approvals, regulatory consents, insurance

Conclusions & Why KERONE

The KERONE-designed 1.5 TPH Continuous Catalyst Regeneration System represents a proven, commercially validated solution to one of the most significant value-recovery opportunities in India's refining and petrochemical industry. The process is built on rigorous KRDC laboratory data — not theoretical projections — and the industrial design directly replicates the exact process conditions that produced measurable, certified results on Suvarna Petrochemicals' actual spent FCC catalyst.

Proven Technology

Every process parameter in the 1.5 TPH plant — 650 degrees C, 45-minute residence, staged-air combustion atmosphere — is directly derived from KRDC lab trial 62/KRDC/LAB/09 on client's actual feedstock. No extrapolation; no assumptions.

Quantified Outcome

MAT activity improvement from 42 to 71, and coke-on-catalyst reduction from 8.7% to below 0.35%, are measurable, certified results — not marketing claims.

Commercial Clarity

The financial model demonstrates a payback period of approximately 2.1 years at conservative regenerated-catalyst pricing, converting an existing refinery waste stream into a INR 2,800+ Lakh/year profit line.

Full Ownership

KERONE designs, manufactures, supplies, installs, and commissions the complete plant from a single point of accountability — eliminating multi-vendor coordination risk.

Scalable Platform

The rotary kiln platform is scalable. A 1.5 TPH system validated at Suvarna Petrochemicals creates the reference installation for 3, 6, and 12 TPH systems for other refiners and petrochemical processors across India and internationally.

Compliance-Ready

Emission control is integral to the KERONE supply scope — the system is designed to CPCB stack norms, not retrofitted for compliance after the fact.

ENQUIRE ABOUT YOUR CATALYST RECOVERY PROJECT

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To initiate a project discussion, please share: feedstock quality report + daily/annual tonnage + site location + target regenerated-catalyst grade required

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DISCLAIMER: All financial projections are indicative and based on prevailing market conditions as of July 2026. Process performance figures are derived from KRDC laboratory data (Report 62/KRDC/LAB/09) conducted on Suvarna Petrochemicals Ltd. feedstock. Actual industrial performance may vary. This document is intended for discussion purposes; a formal quotation will be issued following detailed enquiry.