# ADO BARITE GRINDING FACILITY

By: ADO Barite Guyana Company Inc.

Applicant:

- Company: ADO BARITE GUYANA COMPANY INC.
- Primary contact: Ronique Baxter
- Address: Lot 11 Gordon Street, Kitty, Georgetown
- Phone / Email: roniquebaxter@gmail.com
- Project manager on-site: Ronique Baxter

Project title

- Barite grinding and packaging facility — Guyana

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Project summary

- The ADO Barite Guyana Company Inc. proposes to construct and operate a barite (barium sulfate, BaSO4) grinding and packaging facility at Lot 7 Section B, Western half Ruimzeight, W.C.D into graded, milled barite products for drilling fluid and industrial uses. Operations include primary feed receiving/storage, crushing (if required), milling/grinding, classification, drying, final sieving/blending, bagging (if required), and shipping. The facility will include dust control systems, wastewater management, stormwater controls, noise mitigation, and monitoring programs to meet Guyana EPA and other applicable standards.

Location & site description

- Address and coordinates: RQRC+496 Windsor Forest
- Property size: 6 acres
- Current land use and zoning: Old Rice mill

Purpose & need

- Market demand: supply for oil & gas drilling muds, paint & coatings, weighting agent for industrial applications.
- Economic benefits: local employment (construction: 15 persons, operations: 25 persons, local procurement, export revenue.

Project components & layout

- Site plan summary: receiving area, raw material stockpiles (covered), primary crushing (if required), milling building, classifier/sizer, bagging/packing area, finished goods storage (covered), administrative building, weighbridge/ truck loading area, wastewater containment, stormwater controls, electrical substation, fuel storage, parking.

  Access: proposed truck access routes, weighbridge location, parking for staff and visitors.

Feedstock & throughput

- Raw material: Barite ore (specify source, typical composition, moisture, particle size)
- Annual capacity: nominal [X] t/yr; maximum [Y] t/yr
- Operating hours:  24 hr/day, 7 days; shift pattern

Process description

1. Receipt & inspection
    - Raw material (barite ore) is imported from Morocco and India.
    - Bulk trucks deliver raw barite to the receiving pad. Materials sampled for quality and moisture.
2. Storage & handling
    - Raw barite stockpiled in covered bays or silos with dust suppression; conveyors (covered) transfer feed to primary processing.
3. Primary crushing
    - Jaw or impact crusher reducing oversized feed to specified feed size for mills; crushers located inside building or with enclosures.
4. Grinding/milling
    - Mill type(s): Vertical roller mill.
    - Typical circuit: raw feed → mill → cyclone/separator → classifier → return fines → bagging/storage.
    - Target product fineness: median particle size / D50 = [µm], specific gravity ~4.2 g/cm3; API/ASTM grades if applicable.
5. Classification & air/size separation
    - Air classifiers or hydrocyclones to achieve particle size distribution; oversize recycled to mill.
6. Drying

- Rotary or flash dryer if incoming moisture exceeds tolerance; hot gas or indirect heating; emissions routed to dust collectors.

7. Blending & final screening
    - Blending for product consistency; vibratory screens for final sizing (e.g., -200 mesh, -325 mesh).
8. Bagging & packaging
    - Automated bagging line or bulk loading into super-sacks; sealed pallets stored in covered warehouse.
9. Shipping
    - Finished product loaded to trucks for domestic or port transport.
10. Ancillary: maintenance workshop, weighbridge, lab for quality control.

Equipment list

| No | Item Name | Quantity | Total Cost (USD) |
|---|---|---|---|
| 1 | Hopper (36M3) | 1 | 14,170 |
| 2 | Vibrator for hopper (CZQ1054) | 2 | 1,620 |
| 3 | Electric Rod Valve (400×400) | 2 | 7,820 |
| 4 | Constant feeder (B650* 4.5M) | 1 | 16,550 |
| 5 | Belt conveyor (B500* 28M) | 1 | 16,000 |
| 6 | Iron remover (RCYB-5) | 1 | 4,400 |
| 7 | Dust filter (DMC 64A) | 1 | 5,900 |
| 8 | Hopper (2M3) | 1 | 2,025 |
| 9 | Rotary lock air feeder | 1 | 9,150 |
| 10 | Vertical mill (LM130K + classifier) | 1 | 208,000 |
| 11 | Dust filter (SLQM96-2x5) | 1 | 82,750 |
| 12 | Blower system | 1 | 28,750 |
| 13 | Pipe & non-standard parts | 1 | 17,200 |
| 14 | Return conveyor (400×80×18M) | 1 | 10,300 |
| 15 | Return iron remover (RCYB-4) | 1 | 1,100 |
| 16 | Pneumatic transport (LZSR-200) | 1 | 18,600 |
| 17 | Product silo (130M3) | 1 | 40,500 |
| 18 | Gate valve (300×300) | 1 | 1,600 |
| 19 | Packing machine (JKC-1000C) | 1 | 13,200 |
| 20 | Point fluidizer system (12 pcs) | 1 set | 1,650 |
| 21 | Sensor detection elements | Multiple (6 pcs) | 3,000 |
| 22 | Auxiliary engine starting system | 1 | 58,150 |
| 23 | Vertical mill central control | 1 | 31,100 |
| 24 | Spare part – Reducer | 1 set | 44,000 |
| 25 | Spare part – Roller case | 1 set | 9,050 |
| 26 | Spare part – Liners for turntable | 1 set | 6,400 |
| 27 | Spare part – Classifier impeller | 1 set | 2,300 |
| 28 | Spare part – Liner of scraper | 1 set | 65 |
| 29 | Spare part – Liner of discharge | 1 set | 150 |
| | **GRAND TOTAL (CIF Georgetown, Guyana)** | | **655,500** |

Emissions and pollution sources

- Air emissions:
    - Fugitive dust from stockpiles, conveyors, transfer points, screening, bagging, truck loading/unloading.
    - Point sources: crusher, mill vents, dryer exhaust (if used) — particulate matter (PM10, PM2.5), with potential trace metals (barium content is inherent).
- Wastewater:
    - Process wash water (minimal because of dry processing), equipment cleaning water, sanitary wastewater.
    - Stormwater runoff from paved areas potentially carrying suspended solids.
- Solid wastes:
    - Rejects/oversize material, spent filter bags, general industrial waste, oily rags, used lubricants.
- Noise:
    - From crushers, mills, conveyors, generators, and truck movements.
- Hazardous materials:
    - None being used

Control measures & environmental management

- Air quality controls:
    - Enclosed conveyors and transfer points; minimize open drop heights.
    - Baghouse / fabric filters sized for process flow; collection efficiency >99% for particulate.
    - Cyclones ahead of baghouse to remove large particulates and reduce load.
    - Localized extraction hoods at crushers, mills, screens and bagging; HEPA or high-efficiency cartridges for final polishing where needed.
    - Water spray dust suppression at stockpiles and open transfer areas during dry conditions; cover stockpiles where practicable.
    - Paved surfaces and wheel-wash at site exit; road sweeping schedule.
    - Traffic route and speed limits on-site to reduce fugitive dust.
- Wastewater & stormwater:
    - Segregated drainage: process/dirty water to sealed sumps with oil/water separators and sedimentation ponds; sanitary to septic or municipal.
    - Recycle process water after settlement and reuse in dust suppression where feasible.
    - Stormwater detention basin and silt traps; containment berms to prevent offsite discharge until clarified.
- Solid/hazardous waste:
    - Collect and store rejects and filter media in covered, labeled containers; dispose at licensed facilities.
    - Spill kits, secondary containment for fuel/chemical storage; routine inspection.
    - Used oils managed per hazardous waste regulations; contract licensed hauler.
- Noise mitigation:

    - Enclosures for noisy equipment; acoustic barriers; limit night-time operations near sensitive receptors.
- Worker health & safety:
    - PPE: respirators, dust masks, hearing protection, safety footwear, gloves.
    - Health monitoring focusing on respirable dust exposure and hearing.
    - Standard operating procedures, training, confined space and lock-out/tag-out programs.
- Traffic & transport:
    - Route planning to minimize impact through communities; transport drivers to use sealed tarps for loads.

    Fugitive dust monitoring (high-volume samplers or deposition gauges) at perimeter locations.
- +Operational monitoring:
    - Baghouse differential pressure, filter change logs, maintenance records.
    - Production logs, raw material quality, and product QA/QC.
- Reporting:
    - Routine monthly/quarterly reports to EPA: emissions, monitoring results, incidents, corrective actions.

Risk assessment & environmental impacts

- Air quality: potential for increased particulate concentrations near site; mitigated by baghouse, enclosures, and monitoring.
- Water: sediment-laden runoff risk; mitigated via containment and treatment.
- Soil: minimal chemical contamination expected; good housekeeping and secondary containment to reduce risk.
- Human health: inhalation of respirable dust; control through PPE and engineering controls; community exposure minimized by buffer distances and controls.
- Biodiversity: note proximate sensitive habitats (if any) and mitigation (buffer zone, no expansion into habitats).

- Cumulative impacts: provide analysis of local industrial footprint and plan to coordinate with municipal services.

Permits and regulatory compliance

- List of likely permits / approvals to obtain from Guyana EPA and other agencies:
    - Environmental compliance/permit to operate
    - Air emissions permit
    - Water discharge / effluent permit (if discharge)
    - Stormwater management approval
    - Hazardous waste storage/transport permit
    - Local building/occupancy permits, health & safety registrations
    - Port/transport permits for export shipments (if applicable)
- Commit to compliance with Guyana EPA standards, WHO occupational exposure limits, relevant ASTM/API specifications for barite, and applicable international best practices.

Emergency response & contingency

- On-site emergency response plan: fire, spill, medical emergency, dust release.
- Spill response equipment and trained personnel; emergency contacts and notification procedures to authorities.
- Evacuation plan, first aid, and coordination with local emergency services.

Noise & visual mitigation

- Equipment enclosures, acoustic barriers, restricted hours for noisy operations near receptors.
- Landscaping and perimeter screening to reduce visual impact.

Closure & decommissioning

- Outline of closure plan when operations cease: removal/demolition of buildings, progressive rehabilitation of stockpile areas, contamination assessment, safe disposal of hazardous materials, restoration to agreed post-closure landform.
- Financial assurance: commitment to ensure funds available for closure (specify mechanism if required).

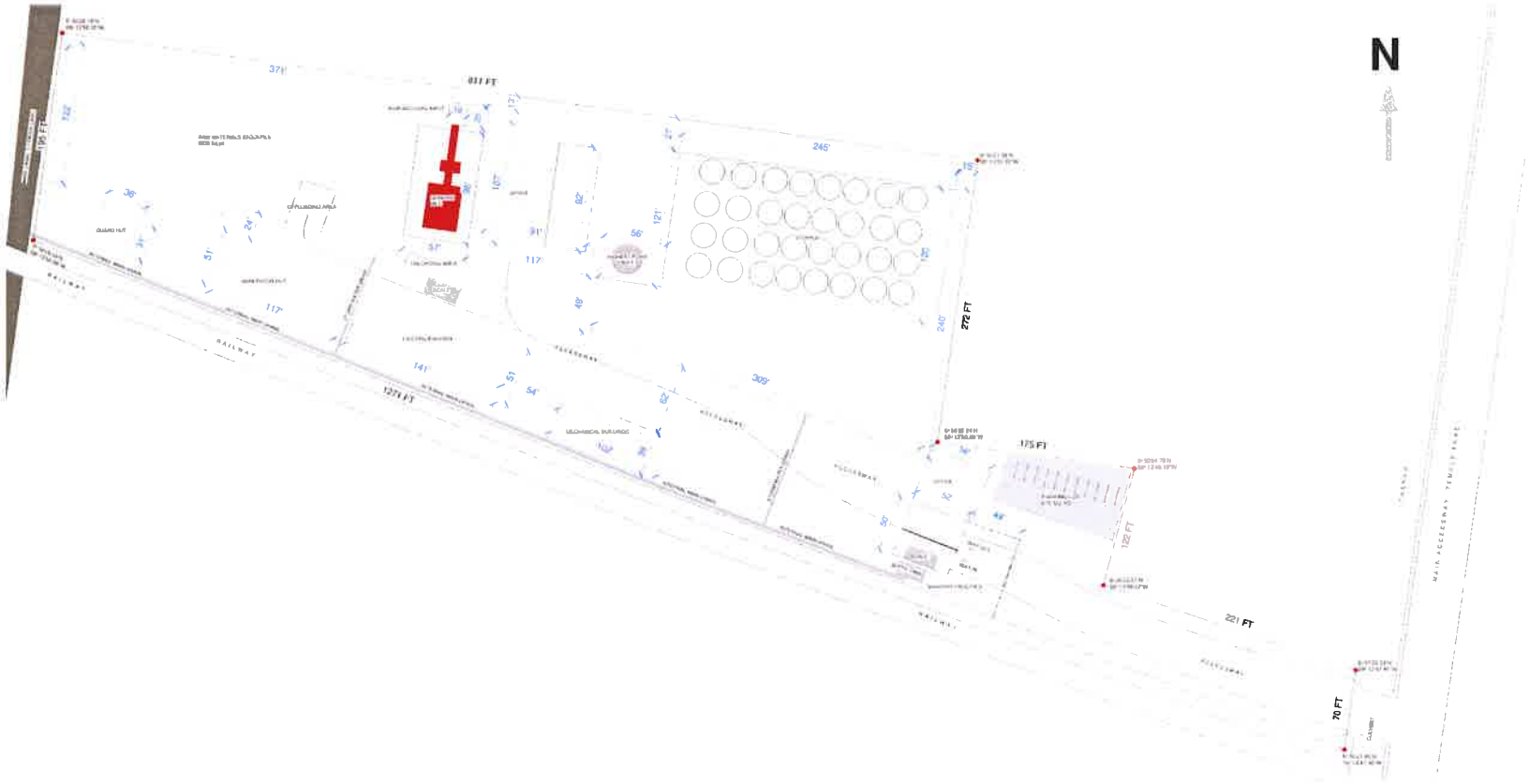
Construction & commissioning schedule

- Typical milestones (replace dates with project schedule):
    - Detailed design and permit approvals: April, 2026
    - Site preparation & civil works: Ongoing
    - Equipment procurement: 2 months after licensing
    - Erection / installation: June 2026
    - Start of operations: September, 2026
- Construction workforce estimate and expected duration.

Environmental management system (EMS)

Prepared by ADO Barite Company Inc.

[3/6/2026]

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| No. | Description | Date |
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# ADO Barite Guyana Company Inc.

## SITE PLAN

7d, 7e & 7f of Lot 7 Section B, Western Half of Plantation Ruimzight, W.C.D

Project Number

Date 2026/02/10

Drawn By J.Deokaran

Checked By

1

Scale 1" = 40'-0"

1 Site
1" = 40'-0"

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