rompetrol | KazMunayGas International Group Member

2023

Rompetrol Rafinare S.A.

INVESTMENT BUDGET 2023

ROMPETROL RAFINARE SA
215 Năvodari Blvd. Administrative Building, 905700, Năvodari, Constanța, ROMANIA
fax: + (40) 241 506 930 | phone: + (40) 241 506 207 | email: office.rafinare@rompetrol.com
www.rompetrol.com

Investment program 2023

The investment activity in **2023** will be focused, according to the program, on the following:

- Preparation of the investment package to be implemented in Refinery General Turnaround 2024;
- Acquisition of spare parts for strategic equipment;
- Manufacturing of high priority heat exchangers, dynamic equipment and ensuring efficient cooling of gaseous fractions converted into gasoline;
- Continuing Fire Fighting program, to create assumptions for providing the necessary operating conditions for firefighting system;
- Running refinery at nominal run rate, operate all the units at planned capacity and obtain required quality of products by replacing necessary catalysts;
- Running with the refinery units according to legislation in force, as a result of detailed inspections and obtaining the functioning authorization for the pressurized equipment, pipes and lifting equipment as per Technical Prescription.
- The alignment with the requirements of the European Union, the environmental standards in force, and with the aim of reducing emissions.

Total investments planned value for **2023** is **46.2 millions USD**, following splitting per programs according below table:

USD amount	**Budget 2023**
Petromidia, from which:	**41,741,703**
Development	1,375,000
Operational Support	1,909,371
Compliance	8,554,650
Capital maintenance	29,902,682
Vega, from which:	**4,490,533**
Development	989,000
Compliance	1,080,905
Capital maintenance	2,420,628
Refinery Total Investments	**46,232,236**

The main projects which have planned impact on year 2023 in Rompetrol Refinery:

- **Petromidia Refinery, Petrochemicals and Vega Refinery 2024 General Turnaround (preparation works for Refinery General Turnaround 2024)**

For refinery, shutdown means a scheduled large-scale maintenance activity wherein an entire process unit is taken off stream for an extended period for comprehensive revamp and renewal. This operation involves many preparations and requires many precautions, especially at during startup.

Rompetrol Refinery Board of Directors adopted in May 15, 2018 a new strategy for planning the General Turnarounds and Shutdowns between 2018-2026 by reducing the actual cycle of 5 years to 4 years for General Turnaround, respectively to establish a Shutdown between 2 General Turnarounds, every 2 years. This was helpful and seen in Key Business Drivers.

To reach refinery goal by having a high mechanical availability, refinery must have high reliability at low cost. This can be assured only by having periodically refinery turn around.
The main works packages consist of:

- Catalyst Replacement / Regeneration and Catalyst Services - all work related to the replacement of end-of-life catalysts with new or regenerated catalysts - to maintain a high gasoline / diesel production efficiency, and to obtain products with high economic value.
- Operational works - The other activities, which do not refer to maintenance repairs or modernization, but which are required in order to achieve good efficiency in the refinery, mandatory activities in order to prevent possible damage or defects of equipment due to corrosion, erosion, deposits in the technological process
- Maintenance – Usual repairs and inspection necessary for equipment static/dynamics and pipes that cannot be performed during units operation;
- Capital Maintenance – equipment's that will be replaced only in shutdown period.
- Capex or Improvement project – implementation of CAPEX projects that can be done only with plants shutdown.
- Unexpected/found works – works that appear after the equipment opening.

Within this project, the benefits are as follows:

- Maintain Refinery at its nominal monthly capacity.
- Maintain the efficiency of the units from the perspective of mechanical availability, at a high percentage;
- Increase reliability / availability of equipment during operation.
- Safety–zero incidents (human accidents or damage to equipment)

o **Replace Refinery static equipment Program - 2023 and 2024 Packages**

The „Refinery static equipment rehabilitation" program was started to create conditions for operating of the Refinery at maximum capacity of crude oil processed, by ensuring efficient cooling of gaseous fractions converted into gasoline, an improvement of the technological process, higher efficiency and an increase in quality and production. Main activity of the program is manufacturing and replacement of static equipment for a proper functioning of the refinery units.

- Static equipment's replacement – 2023 Package (9 items) includes the following:
  - Repair spare tubular section for 100A1/7 and 100A1/8, 100 CDU unit;
  - Replace tubular bundle for 100S5, 100 CDU unit;
  - Replace tubular bundle for 120S2A, 120 NHT unit;
  - Replace tubular section for 220A2/1 air cooler, MHC unit;
  - Replace tubular section for 220A2/2 air cooler, MHC unit;
  - Replace recycle cooler for 322E108G, LDPE unit;
  - Replace tubular bundle for heat exchanger E951, PP unit;
  - Replace caps for E243, Steam Cracker unit.

- Static equipment's replacement - 2024 Package (13 items) it is proposed to start in 2023 and will consider the following:
  - 313V S3: New subassemblies for 313V S3 heat exchanger (shell, distribution chamber) (purchasing and mounting activities);
  - 220-E302: New air preheater on 220-E302 (purchasing and mounting activities);
  - 138-FV14: New ventilation vessel on the 138-FV14 (purchasing and mounting activities);
  - 130-S16: New heat exchanger for 130-S16 (purchasing and mounting activities);
  - 135-S12A: New tubular bundle for 130-S12 (purchasing and mounting activities);

- 147-S5 147-S6: New tubular bundles for 147-S5 and 147-S6 (purchasing and mounting activities);
- 138F-V16, 138F-NV17A, 138F-NV17B, 138F-NV18: New equipment's for 138F-V16, 138F-NV17A, 138F-NV17B, 138F-NV18 (purchasing and mounting activities);
- Economizer Eco640: 10 new tubular bundles purchase for ECO 640 equipment. Monting activity not included into project scope, which will be managed separately on 2024 Turnaround project.
- 121-V7: New vessel for 121-V7 (purchasing and mounting activities);

The estimated term for program finalizing is March 2024.

- **Firefighting Water Main Replacement Program – 2022 and 2023 Packages**

The main goal of a fire-fighting system is to prevent, extinguish, localize, or block fires, trying to preserve live, protect property, limit environmental possible negative impact.
Main part of existing fire-fighting system represents water network:

- fire Fighting Pumping Station which is feed with water from Poarta Alba-Midia-Luminita Channel
- feeding line 1 - from Fire Fighting Pumping Station to the Refinery – 1,800m (DN1000)
- feeding line 2 - from Fire Fighting Pumping Station to the Refinery – 1,100m (DN1000)
- inside platform pipelines network, around 38,311m (with vary diameters between DN 100 and DN 1000) split in the Refinery, Petrochemicals, Crude Tank Farm (8x50.000mc) and Wastewater Treatment Plant areas.

Resulting thus a total estimated of 41,211m of pipes and associated infrastructure for the fire fighting system.
The water network will be permanently rehabilitated through specific works, such as: replacement of pipes, hydrants and water cannons, wells for new or repaired taps, under-crossings of the existing infrastructure.
The following packages are part of the 2023 investment plan as follows:

- Replacement of fire water pipes Package 2023 - 6 sections will be replaced T065, T069, T072, T079, T077, T061 with a total of 2,405 linear meter for which the estimated completion deadline is June 2023;
- The replacement of water pipes for fire 2023 will continue in the following years.

- **Refinery Catalyst Change**

The activities with the objective of changing catalysts in the Petromidia Refinery in 2023 consist of replacing the following catalysts:

- 125 DHT unit delivery of regenerated catalyst, supply new guard and make-up;
- 122 DHT unit delivery of catalyst.

Preparation for 2024 Refinery General Turnaround:

- Catalyst replacement 352- Flare Gas Recovery Unit;
- Catalyst replacement 220-MHC Unit;
- Catalyst Replacement 125 DHT;
- Catalyst Replacement 120 NHT;
- Catalyst replacement 147-MTBE Unit;
- Catalyst replacement 130-Platforming Unit;
- Replacement of adsorbent from 120-V101 Guard vessel;
- Replacement of molecular sieve and ceramic balls D214 and D707 in PP unit;
- Replacement of molecular sieve and ceramic balls for dryers F211 in Steam Cracker;

- **Expire authorization ISCIR for static equipment (ISCIR 2023-2024)**

Project consists in aligning to legislation requirements in terms of safety functionality of the refinery equipment. By project implementation, the following benefits are expected:

- Running with the refinery units in safety conditions according to legislation in force, as a result of detailed verifications which will be performed during this evaluation program which will have as a result the technical evaluation of the equipment after specified years of service, as well as repair or elimination of the faults which will appear after the inspections;
- Obtaining the functioning authorization for the pressurized equipment, pipes and lifting equipment as per Technical Prescriptions

- **Tanks rehabilitation program**

The scope for 2023 is to rehabilitate the following tanks:

- A gasoline tank with a capacity of 5,000 cubic meters with construction works planned to be performed in 2023 year (B6 tank);
- A vacuum hydrofined distillate tank, with a capacity of 5,000 cubic meters with inspection and detail design activities planned for 2023 (DV21 tank);
- Four diesel tanks with a capacity of 10,000 cubic meters with design and execution related activities planned to be performed during 2023 as follows:
  - Two tanks with detailed design related activities (M95 tank and C99 tank);
  - Two tanks with construction related activities (M92 tank and C101 tank);

- **Replace coke drilling-cutting system in the DCU unit**

It is proposed to continue the project during the year 2023 with a completion date of 2024 and it will aim to replace the coke drilling-cutting system in the Coking unit.
The new drilling / cutting system will be provided by an established supplier of this type of system.

- **Replace subassembly of reformer heater 352-H201**

The project continued in 2023 and is planned to be completed in 2024, being a project linked to the 2024 Refinery General Turnaround.
Project scope of work is acquisition and replacement of 352-H201 reformer subassemblies (outlet subleaders – 3 pieces, catalyst tubes – 114 pieces, distributors – 3 pieces and inlet pigtails – 114 pieces, S2103 preheater, etc.).

- **Acquisition and install of 2 new Reactors -125-DHT unit**

As a part of 2024 investment program correlated with 2024 Refinery General Turnaround is also the project of acquisition and replacement of two new reactors in 125- Diesel Hydrotreater Unit.
Expected benefits after implementation

- ~30% increased catalyst quantity vs existing reactors, and a more advanced internal flow distribution system;
- Reduce maintenance costs;

- **Flue gas pipe support system expertise and replacement of the flue gas pipe N-PG-138F-030**

Project is also correlated with 2024 Refinery General Turnaround, with set scope of work to replace flue gas pipe, together with lenticular expansion compensator, expecting following benefits:

- Reducing maintenance costs;
- Safe operation of the installation.

- **New Traveling crane with clamshell bucket**

Delayed Coker Unit is equipped with two portal cranes (big grid with lattices). These have the role of extracting the coke resulting from the production process from the evacuation basin and storing it in the drying and storage silo. This storage provides storage for approximately 15 days of operation of the Coking plant and has the role to handle the coke from the silo, to be delivered by rail or car to domestic consumers.
The project considers the replacement of the Portal Crane with clamshell bucket (double beam with brackets) M2, the project is initiated in 2023 and will be completed in 2024.

- **Safety measures package for Petromidia Refinery hydrotreaters units**

Industrial processes from PEM Refinery are complex processes, a big part of them involving sever working parameters: high pressures and high temperatures in presence of very flammable liquid and gaseous compounds, potential explosive atmospheres, toxic compounds, etc. Considering these aspects, safety of operating personnel from PEM Refinery and integrity of industrial units represented during time a constant and continuous concern. Thus, many safety measures were analyzed and implemented during time, a safety culture was developed and operational control of technological process was significantly increased.

The project scope is to develop and implement of a safety measures package for separation points between high-pressure and low-pressure sections for PEM Refinery hydrotreaters units: 120-Naphta Hydrotreater, 121-Kero Hydrotreater, 122-Diesel Hydrotreater, 125-Diesel Hydrotreater.
Project is planned to be performed in two phases:

- Phase 1, finalized in December 2022 – consisted in internal formalities for project start-up; contracting of the Engineering services (Basic Design and Detailed Design); project documentation provided to designer; reports with proposed measures for low pressure/high pressure separation points issued and validated for each unit;
- Phase 2, started in 2023 – will consist in implementation of the project: re-evaluation of entire project cost, procurement, construction and mounting works, commissioning and start-up activities.

The project implementation will be completed in 2024.

- **Safety package - phase II (sampling systems) - Up-grade sample points in Petromidia Refinery units**

For an optimal operation of the industrial installations within the Petromida Refinery, a very important activity is the periodic sampling and analysis of streams from various flows related to industrial installations, to determine the quality of these.
Project will be implemented in two phases:

- Phase 1 - Detailed Design Engineering package in order to replace 96 sampling points form Petromidia Refinery Units with new sampling points
- Phase 2 - Procurement, Construction and Mounting works for 96 sampling points replacement

The tie-ins execution to connect new sampling points to technological and utilities streams will

The investment plan for 2023 and the list of abbreviations of the Refinery units are listed in the supporting annexes (annex 1 and annex 2) below:

Annex 1_BU Refinery CAPEX Plan 2023_EN(

Annex 2_Refinery units abv.xlsx

THE BOARD OF DIRECTORS:

Chairman
Yedil Utekov

DocuSigned by:
Yedil Utekov
2D8DB454E0ED4A0...

Member
Askar Abilov

DocuSigned by:
Askar Abilov
7A591DD19B9B443...

Member and General Manager
Felix Crudu-Tesloveanu

DocuSigned by:
Felix Crudu-Tesloveanu
8C456324FA134C6...

Member
Bogdan-Catalin Steriopol

DocuSigned by:
Bogdan-Catalin Steriopol
9731E8E298FC477...

Member
Nicolae Bogdan Codruţ Stănescu

DocuSigned by:
Nicolae Bogdan Codrut Stanescu
889201E6A5B34F8...

Finance Manager
Ramona-Georgiana Galateanu

DocuSigned by:
Ramona-Georgiana Galateanu
13328E857004454...

Development & Service Director
Florian Daniel Pop

DocuSigned by:
Florian Daniel Pop
2725919E5DE440C...

Capital Investments Manager
Elis Geacai

DocuSigned by:
Elis Geacai
820B741C98894D0...

Annex 1

BU REFINING 2023 CAPEX PLAN

Nr. crt.		Project Name	Total Project estimated Budget ($)	2023 Budget ($)
		Refininig	**$ 288,157,504**	**$ 46,232,236**
		Petromidia	**$ 266,360,704**	**$ 37,965,403**
		Petromidia Operational	**$ 262,180,704**	**$ 36,640,403**
		Petromidia Operational - Operational Suport	**$ 17,905,514**	**$ 1,909,371**
1		New raw water pumping station - Carasu	$ 4,500,000	$ 369,170
2		Install motor operating valves at HPR unit	$ 200,000	$ 60,000
3		Fast filtering station rehabilitation	$ 1,776,400	$ 90,000
4		PSI system activation at LPG ramp	$ 302,600	$ 50,000
5		Replacement of fiberglass pipes in the Gazcon cracking area	$ 2,000,000	$ 200,000
6		Replace subassembly of reformer heater 352-H201	$ 7,803,294	$ 1,100,000
7		Refinery dynamic equipment replacement 2022-2025	$ 1,323,220	$ 40,201
		Petromidia Operational - Compliance	**$ 23,931,976**	**$ 7,454,650**
8		Install fire warning sensors, smoke sensors and controlled access inside power stations	$ 1,500,000	$ 500,000
9		Gas pipelines reconditioning	$ 150,000	$ 50,000
10		Expansion of video monitoring security system SK audit	$ 1,500,000	$ 1,650,000
11		Rehabilitation of civil protection buildings	$ 138,138	$ 138,138
12		Expire authorization ISCIR for static equipment's (ISCIR 2023-2024 PEM)	$ 15,510,000	$ 2,200,000
13		Centralized system of warning and alarm in Petromidia Platform	$ 450,000	$ 50,000
14		Firefighting for warehouse	$ 150,000	$ 150,000
15		Rehabilitation of G3 cooling towers diffusers	$ 600,000	$ 110,000
16		120V6 new vessel	$ 610,386	$ 90,000
17		Deaerator Firefighting Protection-Hydrogen Production Plant	$ 431,700	$ 431,699
18		Up-grade the existing acces control system - PEM- 2022	$ 653,465	$ 553,465
19		138 FC1 rotor upgrade	$ 4,000	$ 4,000
20		Replacement of two assemblies Diesel motor-pump for Petromidia Firefighting pumping station	$ 130,000	$ 143,000
21		220-A2 air cooler bundles replacement	$ 328,069	$ 272,626
22		Safety package - phase II (sampling systems)	$ 600,000	$ 165,000
23		Process safety package	$ 1,176,218	$ 946,722
		Petromidia Operational - Capital maintenance	**$ 110,171,607**	**$ 27,276,382**
24		Rehabilitation DH26 tank	$ 1,200,000	$ 80,291
25		Rehabilitation 120-338 B6 tank	$ 3,397,348	$ 1,324,211
26		Rehabilitation of Roads 2023-2027-Program	$ 250,000	$ 50,000
27		Refinery dynamic equipment replacement 2022	$ 1,323,220	$ 69,043
28		Fire-fighting Water Main Replacement 2023	$ 3,957,622	$ 3,957,622
29		Replace radars of sphere tanks 2 pcs	$ 126,900	$ 60,000
30		Replacing the V7A vessel of the warehouse for acids and bases	$ 610,500	$ 409,677
31		Replace radars of sphere tanks 2 pcs	$ 66,884	$ 66,884
32		Replacement of the radiation coil from the 120H1 furnace	$ 756,200	$ 58,112
33		New Traveling crane with clamshell bucket	$ 2,609,540	$ 1,750,000
34		Rehabilitation tank 120-388 B9	$ 2,394,626	$ 2,394,626
35		Upgrade PLC FCC	$ 977,538	$ 300,000
36		Improve biodiesel unloading process by rehabilitation of dynamic weightscale from B area	$ 55,500	$ 55,000
37		Refinery 2024 Turnaround	$ 31,530,000	$ 3,300,000
38		2023 Catalyst replacement in 120NHT & 122DHT units	$ 3,810,530	$ 300,000
39		Refinery 2024 Catalyst Change	$ 16,500,000	$ 100,000
40		Replace Refinery static equipment 2023	$ 1,093,118	$ 1,000,000
41		Replacind (retrofit) of 0,4 kV General Distribution Switchboards in Refining electrical stations (s	$ 600,000	$ 350,000
42		Rehabilitation tank 120-388 B8	$ 1,200,000	$ 361,926
43		Reconstruction tank T103 and upgrade new firefighting system facilities and infrastructure	$ 1,256,795	$ 50,712
44		Rehabilitation M92 tank	$ 4,400,608	$ 1,661,966
45		Rehabilitation DV21 tank	$ 1,412,814	$ 1,287,000
46		Rehabilitation C99 tank	$ 1,887,221	$ 718,428
47		Rehabilitation M95 tank AFPR	$ 4,633,199	$ 994,145
48		Rehabilitation C101 tank AFPR	$ 2,548,516	$ 795,605
49		Replace coke drilling-cutting system in the DCU unit	$ 11,687,827	$ 570,810
50		Emergency works for unexpected capital maintenance 2023	$ 431,701	$ 431,701
51		Unforeseen works 2023	$ 500,000	$ 500,000
52		Rehab concrete support structure of 100A1,A2, DAV Unit	$ 590,000	$ 100,000
53		Rehab concrete support structure of Vacuum Ejectors, DAV Unit	$ 192,700	$ 98,905
54		Eliminating overpressures on the pipelines between skid and automated ramp	$ 650,000	$ 250,000
55		Replace drainage pumps SP II	$ 121,700	$ 121,718
56		Replace cryogenic evaporators of cryogenic tanks RTG5/6 and RTV7/8/9/10	$ 140,000	$ 140,000
57		Replace biological treatment aeration system	$ 118,000	$ 118,000
58		Replace cooling tower modules on G100 cooling tower	$ 545,500	$ 150,000
59		Replace cooling tower modules on G200 cooling tower	$ 545,500	$ 150,000
60		Replacement of electrical equipment in the power station 306 Polipropilen plant;,TGD (general	$ 1,200,000	$ 700,000
61		Replaced electrical equipment in the power station 109 DGRS AFPE 6kV switches, TGDTcc	$ 900,000	$ 300,000
62		Replacement power transformator nr. 1 110/6kV in SRA1	$ 800,000	$ 500,000
63		Systematization and platforms in berth 1-4	$ 3,000,000	$ 1,500,000
64		Install security protection on N-E area of the Rompetrol Rafinare private property - PEM	$ 150,000	$ 150,000
		Petromidia Non-Operational	**$ 4,180,000**	**$ 1,325,000**
		Petromidia Non-Operational - IT	**$ 3,980,000**	**$ 1,255,000**
65		Replace HVAC system Petromidia Data Center	$ 100,000	$ 50,000
66		Plant Information Hardware replacement	$ 150,000	$ 50,000
67		Replace analogic phones PEM	$ 150,000	$ 40,000
68		IT non-standard equipments 2023	$ 80,000	$ 25,000
69		Corrosion predict RT	$ 1,060,000	$ 350,000
70		Plant Information -upgrade PI Vision	$ 340,000	$ 240,000

71		Implement online instruction SSM application	$	100,000	$	50,000
72		OTS- Operator training simulater	$	2,000,000	$	450,000
		Petromidia Non-Operational - ADMINISTRATIVE	**$**	**200,000**	**$**	**70,000**
73		RQC Ventilation system	$	200,000	$	70,000
	Petrochemicals		**$**	**12,717,439**	**$**	**3,776,300**
		Petrochemicals Development	**$**	**1,793,639**	**$**	**1,375,000**
74		Side extruder for masterbatch additivation	$	1,793,639	$	1,375,000
		Petrochemicals Operational	**$**	**10,923,800**	**$**	**2,401,300**
		Petrochemicals Operational - Compliance	**$**	**4,030,000**	**$**	**1,100,000**
75		Expire authorization ISCIR for static equipments (ISCIR 2023-2024 PET)	$	4,030,000	$	1,100,000
		Petrochemicals Operational - Capital maintenance	**$**	**6,893,800**	**$**	**1,301,300**
76		New Die Plates for Z501AB in PP unit	$	265,000	$	265,000
77		New Screw for Z501 AB in PP unit	$	448,800	$	36,300
78		Petrochemicals 2024 Turnaround	$	6,180,000	$	1,000,000
	VEGA		**$**	**9,079,361**	**$**	**4,490,533**
		VEGA Development	**$**	**989,000**	**$**	**989,000**
79		Increase processing capacity at the N-hexane plant	$	989,000	$	989,000
		VEGA Operational	**$**	**7,990,361**	**$**	**3,401,533**
		VEGA Operational - Compliance	**$**	**2,511,940**	**$**	**1,080,905**
80		Expertise (PEVIT) for pressure equipments and metallic pipes authorized (ISCIR 2023-2024)	$	1,460,000	$	506,000
81		3D Modelling for pipelines from the Hexan installation with P&ID update and drawing up the lis	$	148,800	$	104,285
82		Rehabilitation of retention dams in the North and South tank park	$	409,840	$	130,670
83		Installation of water cooling system for metal tan	$	493,300	$	339,950
		VEGA Operational - Capital maintenance	**$**	**5,478,421**	**$**	**2,320,628**
84		Vega Corlatesti sewerage system pipe line replacing	$	249,900	$	103,637
85		Vega Turnaround 2024	$	2,290,000	$	500,000
86		Rehabilitation of Vega Roads	$	250,000	$	50,000
87		Connect A35 tank to 101-PS1 pump	$	64,388	$	64,388
88		Install acces control equipments in gate nr. 1 and nr. 2 and Headquarter building - VEGA	$	99,000	$	99,000
89		Replace Diesel Group for water firefighting system	$	300,300	$	300,300
90		Rehabilitation of Vega sewerage systems according with 2017 study findings- Program	$	450,000	$	99,000
91		Replace gasoline pump in the North Pump House	$	117,700	$	36,170
92		Replacement of the General Distribution Switchboards in Vega Refining electrical stations PT4	$	310,000	$	110,000
93		Rehabilitation of Vega Buildings	$	397,133	$	397,133
94		Replacement of electrical panels at technological installations in refinery - Program	$	300,000	$	110,000
95		Tanks rehabilitation Vega - etapa IV (8 tank-uri) 2023	$	400,000	$	220,000
96		Tanks rehabilitation Vega - etapa II (5 tank-uri) 2022	$	250,000	$	231,000
		VEGA Non-Operational - IT	**$**	**100,000**	**$**	**100,000**
97		Upgrade LAN Vega	$	90,000	$	90,000
98		VGA IT Non standard 2023	$	10,000	$	10,000

Board of Directors

Chairman
Yedil UTEKOV
DocuSigned by: Yedil Utekov 2D8DB454E0ED4A0...

Member
Askar ABILOV
DocuSigned by: Askar Abilov 7A591DD19B9B443...

Member and General Manager
Felix CRUDU-TESLOVEANU
DocuSigned by: Felix Crudu-Tesloveanu 8C456324FA134C6...

Member
Nicolae Bogdan Codruţ STĂNESCU
DocuSigned by: Nicolae Bogdan Codrut Stanescu 889201E6A5B34F8...

Member
Bogdan-Cătălin STERIOPOL
DocuSigned by: Bogdan-Catalin Steriopol 9731E8E298FC477...

Financial Manager
Ramona-Georgiana GĂLĂŢEANU
DocuSigned by: Ramona-Georgiana Galateanu 13328E857004454...

Annex 2 - the list of abbreviations of the Refinery units

Refinery Production Plant	**Production Unit**
100 CDU	Crude Distilation Unit
120 NHT	Naphtha Hydrotreater
121 KHT	Kero Hydrotreater Unit
122 DHT	Diesel Hydrotreater Unit
125 DHT	Diesel Hydrotreater Unit
130 Platforming	Platforming Unit
135 GF	Gas Fractioned Unit
138 FCC	Fluid Catalytic Cracking Unit
147 MTBE	Metil Tertiar Butil Eter Unit
180 DCU	Delayed Coker Unit
185 GD-SR	Gas Desulfurization and Sulfur Recovery Unit
190 SRU	Sulfur Recovery Unit
220 MHC	Mild Hydrocracking Unit
352 HPP	Hydrogen Production Plant
802 FGR	Flare Gas Recovery Unit
402 N2-O2	Oxygen Nitrogen Unit
202 TRA	Water Treatment Station
ELEC	Electric Station
WWTP	Waste water treatment station
AFPE	Blending, Product Finishing and Expedition
DILB	Diesel In Line Blending Unit
GILB	Gasoline In Line Blending Unit
IPPA	IPPA Loading Terminal (Road tankers oil products loading station)
423 Railway Terminal	Railway Terminal
423A Railway Terminal	Railway Terminal- White product, technological Platform
423B Railway Terminal	Railway Terminal- Black product, technological Platform
423C Railway Terminal	Railway Terminal- white- black products, water supply-sewage systems
313V SWS	Sour water stripping Unit
Petrochemicals Production Plant	**Production Unit**
LDPE	Low Density Polyethylene Unit
PP	Polypropylene Unit
HDPE	High Density Polyethylene Unit
Brine Unit	Brine Unit
Steam Cracker Unit	Steam Cracker Unit
DCE	Ethylene Cryogenic Storage
DCP	Propylene Cryogenic Storage
FGR	Flare Gas Recovery Unit