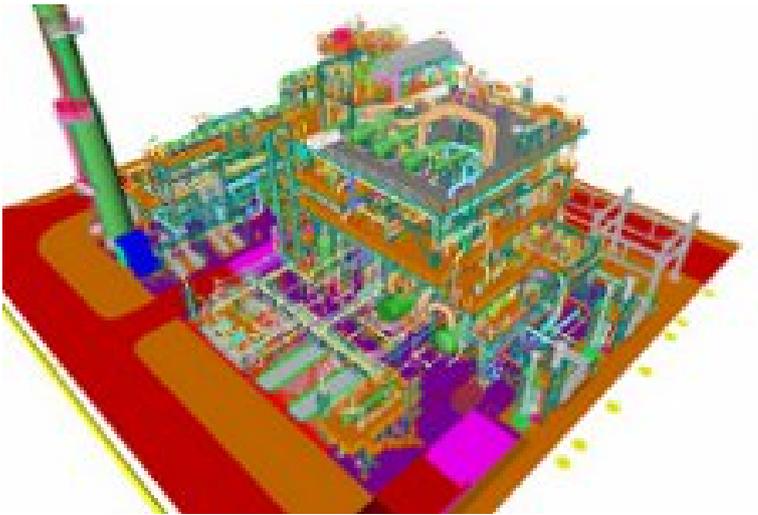


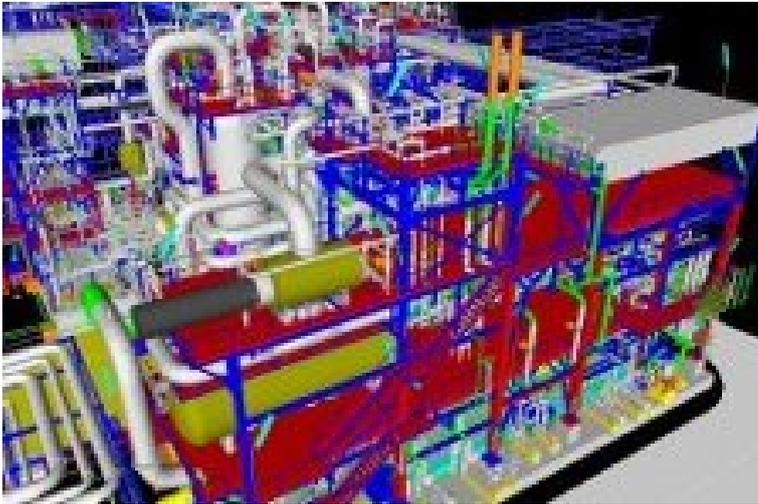
Acid gas and sulphur projects

GALP ENERGIA SGPS, S.A. - SRU, TGTU and incinerator package for Sines refinery



July 2009 - Portugal: Siirtec Nigi has been awarded an engineering and procurement contract by Galp Energia for a peculiar thermal incinerator package to be installed at its Sines refinery (Portugal). It will be capable of treating tail gas from the sulphur train and NH₃ stream from the double stage sour water stripper, thus meeting the most stringent emission requirements. The supply of this incinerator follows two other recent contracts awarded by Galp Energia for basic engineering design package, detail engineering and purchasing services for the SRU and TGTU (based on Siirtec Nigi's HCR technology). The new SRU will operate either with atmospheric air or with enriched air, thus processing up to 135 t/d and 170 t/d respectively. The process units are all based on Siirtec Nigi's know-how and patents. These three contracts are part of the Sines refinery Upgrade Project which aims to convert heavier fractions of crude oil (such as vacuum gas-oil) into light and medium distillates (such as high quality diesel). The market trends driving this project, which emphasise the importance of increasing diesel production and reducing fuel production, are the current high crack spreads between diesel and fuel oil, leading to higher refining margins, and the increased demand for diesel in the European market, especially in Iberia.

ENI S.p.A. - Turnkey SRU unit at Gela refinery



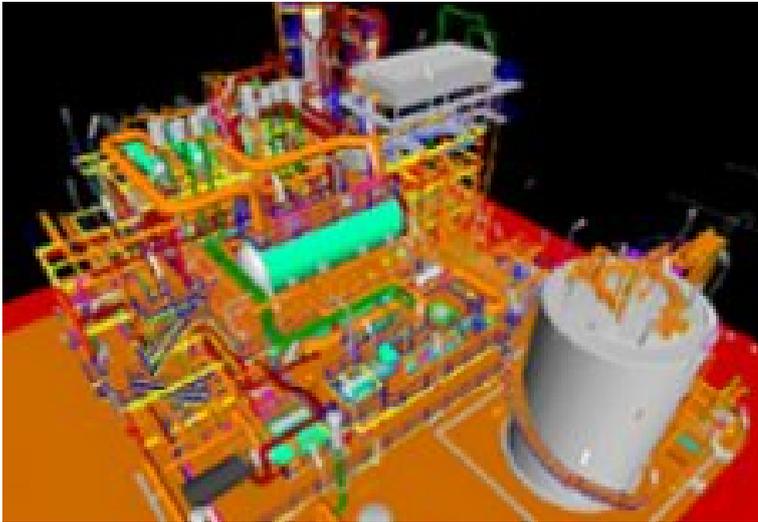
December, 2007 - Italy: Siirtec Nigi has been awarded a lump sum turn-key contract by Eni for the technology supply, basic design, detailed engineering, procurement and construction of a new sulphur recovery unit to be located in the Italian refinery in Gela. The SRU, designed to recover 99.85% of sulphur, consists of a Claus unit set to operate either with atmospheric air or with enriched air (nominal capacity 210 tpd) complemented by a 425 tpd TGCU based on HCR technology a degassing unit and a catalytic incinerator.

ENI S.p.A. - New SRU turnkey project

November, 2007 - Italy: Eni S.p.A. (Exploration & Production Division) awards Siirtec Nigi a lump sum contract for the supply of technology, basic design, detailed engineering, procurement and construction of the acid gas train for the development of an Italian oil and gas field. SINI's scope includes gas sweetening of associated gas, the Claus unit, an HCR tail gas unit, thermal oxidiser, sulphur degassing system and a product sulphur storage tank. This was a zero emission project as the site is adjacent to the well-known Majella National Park and was therefore most challenging.

The project is currently on hold.

IES S.p.A. - Turnkey SRU unit at Mantua refinery



July, 2007 - Italy: Italiana Energia & Servizi S.p.A., through Foster Wheeler Italiana S.p.A., assigns to Siirtec Nigi a lump sum contract for the supply of technology, basic design, detailed engineering, procurement and construction of a sulphur recovery package and tail gas clean up unit for its Mantua refinery. The unit will be designed to recover 105 t/d of liquid sulphur with a sulphur recovery of 99.9%. The process units are all based on Siirtec Nigi's know-how and patents.

TAMOIL RAFFINAZIONE S.p.A. - SRU revamp project at Cremona refinery

November, 2006 - Italy: Tamoil Raffinazione S.p.A. awards Siirtec Nigi an EPC contract for the revamp of the Claus sulphur recovery unit at its Cremona oil refinery, The main objective of the project is to enable the unit to process an additional sour water stripper gas stream.

ENGINEERS INDIA LTD - TGTU technology licence contract

September, 2006 - India: Engineers India Ltd. selects Siirtec Nigi as the technology provider for the Claus tail gas clean up unit at the Bina refinery. The project is called for in order to meet the new more stringent environmental requirements set by local authorities. Siirtec Nigi provides the technology information package for Siirtec Nigi's HCR process designed to treat the tail gas from a 360 tpd Claus unit in a single HCR train.

ENI S.p.A. - Turnkey SRU unit at Taranto refinery



August, 2006 - Italy: Siirtec Nigi is contracted by Eni S.p.A.'s Refinery & Marketing Division's Taranto refinery to supply on a lump sum turnkey basis the technology, engineering, procurement and construction of a new sulphur recovery unit. The challenge is the very high sulphur recovery: 99.87%. The SRU consists in a 213 tpd Claus unit set to operate either with atmospheric air or with enriched air, complemented with a 348 tpd TGTU based on Siirtec Nigi's HCR process, sulphur degassing and a catalytic incinerator.

ENI S.p.A. - Turnkey SRU unit at Sannazzaro refinery



August, 2006 - Italy: Eni S.p.A.'s Refinery & Marketing Division awards Siirtec Nigi a lump sum turnkey contract for the supply of technology, engineering, procurement and construction of a sulphur recovery unit, at its Sannazzaro refinery. The SRU consists of a 210 tpd Claus unit, a 325 tpd TGTU based on HCR process, Siirtec Nigi sulphur degassing and a catalytic incinerator. The sulphur train is designed to achieve a challenging overall sulphur recovery level of 99.87% and be capable of operating on air or with oxygen enriched air.

HELLENIC PETROLEUM S.A. - Thessaloniki TGTU project



August, 2006 - Greece: Hellenic Petroleum S.A. awards Siirtec Nigi a contract for the engineering, procurement and construction of a Sulfreeen tail gas treating unit on the Thessaloniki project. The plant is designed to increase the sulphur recovery of the existing sulphur plant from 96% to 99%. The technology package for this sub dew point process was supplied by Lurgi.

RAFFINERIA DI MILAZZO S.p.A. - SRU revamp project

June, 2006 - Italy: Raffineria di Milazzo S.p.A. awards Siirtec Nigi the engineering and procurement contract for the implementation of WorleyParsons/BOC Oxygen technology. The target of the project is the revamp of a sulphur recovery block including both the Claus and the tail gas clean up units. Oxygen enrichment was selected as the most economic route to reach a sulphur recovery capacity of 260 tpd.

ENI S.p.A. - Sulphur degassing unit revamp at Taranto refinery

April, 2006 - Italy: The long tradition of cooperation between Siirtec Nigi and Eni S.p.A continues as Siirtec Nigi is awarded a contract to supply technology and to deliver on EPC basis two sulphur degassing units, 180 tpd each. These units are designed to meet a specification of 10 ppmw of H₂S in the liquid sulphur from the three sulphur recovery units in the refinery.

JGC CORP. - SRU package at Dung Quat refinery



March, 2006 - Vietnam: JGC Corporation selects Siirtec Nigi as the supplier of technology, basic design, detailed engineering, material and erection of a sulphur recovery plant for Dung Quat refinery, the first refinery project in Vietnam launched by Petrovietnam - Vietnam Oil and Gas Corporation. The Modular SRU, with a capacity of 5 tpd, is designed to recover more than 95% of sulphur with 99.9 + % of purity.

2005

November 2005 - Hungary: MOL - Hungarian Oil and Gas Plc awards Siirtec Nigi the turnkey contract for the Claus 6 project at its Duna refinery in Szazhalombatta. The new 90 tpd plant includes a Claus unit, an HCR tail gas treating unit and a sour water stripper. The project is part of an environmental protection plan whilst at the same time targets an increase in production capacity. The execution plan will maximise the use of qualified local subcontractors and suppliers. This award highlights the continued cooperation between MOL and Siirtec Nigi. Siirtec Nigi has been the principal supplier of technology and plant to MOL in sulphur recovery applications spanning two decades.

September 2005 - China: China National Offshore Oil Company (CNOOC) selects Siirtec Nigi's technology for its sulphur recovery project at the new grass root Huizhou refinery to be built at Daya Bay in Guangdong Province. The sulphur project will feature two 85 tpd Claus plants and a common HCR tail gas clean up unit of 170 tpd capacity plus a liquid sulphur degassing unit. Siirtec Nigi will supply licensed technology and basic design for all the units. CNOOC is China's biggest offshore oil producer and plans to become an integrated oil player. This 2.5 billion USD investment will be CNOOC's first refinery. The refinery will process 250.000 bpd of crude oil produced from CNOOC's



Penglai field offshore mainland China and will also provide feedstock to the adjacent CNOOC'Shell Nanhai petrochemicals complex.

June 2005 - Hungary: MOL, Hungarian Oil and Gas Plc, needs to revamp the existing Claus 4 sulphur plant at its Duna refinery in Szazhalombatta in order to meet new environmental regulations. The main goal of the project is the replacement of the existing Superclaus unit with a new tail gas clean up unit to increase the overall sulphur recovery to 99.5%. To this end, MOL selects the Siirtec Nigi's HCR technology. A similar solution was adopted by MOL for Claus 5 unit which has been in successful operation since 1999. The new unit will also accommodate additional requirements for ammonia destruction in the Claus plant and the replacement of some major equipment. MOL is the leading integrated oil and gas company in Central Europe.

May 2005 - Italy: Siirtec Nigi is awarded the revamp of a Claus unit at an undisclosed Italian refinery of a major oil company. The EPC contract utilises oxygen enrichment technology licensed by PARSONS/BOC to increase the Claus unit capacity by about 30%.

January 2005 - Hungary: MOL, Hungarian Oil and Gas Plc, at its Tisza Refinery plans to increase the overall recovery of the existing Claus 4 sulphur plant to a level higher than 97% in order to meet new environmental regulations. Siirtec Nigi is awarded the contract for the Process Design Package related to revamp and other refurbishing modifications. This engineering service work marks 20 years of successful association between MOL and Siirtec Nigi.

2004

August 2004 - Kazakhstan: Siirtec Nigi, working with Petrofac and Black & Veatch JV will supply process endorsement, detail engineering support and plant equipment for the giant sulphur recovery plant to Agip KCO on the Kashagan Development Project. The two sulphur trains are among the largest in the world with a sulphur recovery capacity of 1,800 tpd each. The conceptual and the front end engineering design of the unit has been performed by Parsons E&C.

2003

October 2003 - Italy: Eni awards Siirtec Nigi the engineering, supply and construction work to revamp Sulphur Recovery Unit n. 2 at Sannazzaro Refinery to accommodate the integration of the IGCC power project and to treat the SO₂ stream coming from the Flue Gas Washing Unit. The revamp, which is based on Parsons/BOC SURE oxygen enrichment technology, follows the original revamp to the unit, executed by Siirtec Nigi and Parsons in 1994 leading to an overall increase in sulphur production of over 70% from the unit. A key design parameter for the project is the exceptionally high sulphur recovery level required on account of the proximity of the site to urban



areas (Milan and Pavia).

August 2003 - Italy: Eni commissions Siirtec Nigi to undertake a technology survey and to provide engineering services in connection with the existing sulphur recovery units of the Val d'Agri Oil Field. The site is located in a natural park and is subjected to very stringent environmental controls. Wide fluctuations in feed quality and quantity have impaired the operations of the sulphur recovery units leading to non-compliance with environmental specifications. Siirtec Nigi's work successfully identified the problem areas and provided a specification of plant modifications to assure continuous and reliable operation whilst meeting the environmental needs.

July 2003 - Libya: Siirtec Nigi is awarded the supply of major equipment for the three sulphur recovery units on the Mellitah project. The award follows the completion by Siirtec Nigi of the FEED packages for the identical trains based on its proprietary technology. The award for equipment is made by the winning JV comprising Snamprogetti, ABB Lummus and Hyundai. The major equipment include the Claus thermal reactor, the waste heat boiler fitted with the steam boiler and the thermal incinerator fitted with the combustion chamber and the related burners, the heat recovery ends and the stack.

April 2003 - Colombia: Ecopetrol has selected the Siirtec Nigi's process for the new 86 tpd Claus and degassing units at its Cartagena Refinery. Siirtec Nigi will supply process technology licence and basic design as a part of the process package provided by Axens for a major expansion and upgrading project aimed at producing clean fuels for the domestic and export market. An existing 55 tpd Claus unit designed and supplied by Siirtec Nigi about 25 years ago is still operating successfully at the Ecopetrol's Refinery located at Barrancabermeja.

January 2003 - Italy: IPLOM awards Siirtec Nigi the revamp and capacity debottlenecking of the sulphur recovery unit at its refinery located near Genoa. The goal is achieved by modifying the Claus thermal reactor to accommodate a combination of burner operation with air and also with a moderate level of oxygen enrichment using a Siirtec Nigi burner.

2002

December 2002 - India: Siirtec Nigi, in cooperation with Larsen & Toubro of India, provides engineering services and the supply of critical equipment for the Sulphur Block and Associated Facilities on the Mahul BPCL Refinery Modernisation Project in Mumbai. The 70 tpd SRU features the cold bed adsorption process for the tail gas clean up section licensed by Delta Hudson.

January 2002 - Italy: Siirtec Nigi is selected by Viscolube to design and supply a gas treating complex as part of the new hydrofinishing project at its spent lube oil regeneration plant in Pieve Fissiraga. The turn-key contract includes the provision of the High and Low Pressure Amine units, a



2.7 tpd Claus unit, sour water stripper and sulphur degassing unit. The hydrofinishing project will improve the quality of the recycled lube oil, while the acid gas treatment will minimize the environmental impact on the nearby important township. Modular construction was selected to reduce the units footprint, to minimise site construction activities and to achieve a tight erection schedule.

2001

July 2001 - Italy: The revamp of the HDS Unit at Venice refinery meant the need to increase the sulphur recovery capacity. ENI asked Siirtec Nigi to develop the Extended Basic Design Package for the revamp of one of the two refinery Sulphur Recovery Units. The revamp target of a 60% increase in capacity resulted in the selection of SURE technology, licensed by Parsons/BOC, as the technology of the choice. Once again the strategic partnership between Siirtec Nigi and Parsons proves to be the solution for adding value to Customer projects.

July 2001 - Italy: Eni has awarded Siirtec Nigi, a turnkey contract for the third Sulphur Recovery Facility to be built at Viggiano (Potenza). The plant, based on Jacobs/Comprimo licensed technology, includes an amine unit, a 30 tpd Claus unit and a tail gas incinerator. The facility will treat associated gas from the Val d'Agri and Tempa Rossa oil fields, with an aggregate oil production of 150.000 bpd, representing the biggest oil centre in Europe and half the total Italian oil production. Since the plant is located inside a natural park, great care has been given to meet the very tight SO₂ emission limits.

May 2001 - Italy: Eni's Taranto refinery has to address new environmental impact issues due to the operation of two old Claus Units and in the meantime increase the sulphur recovery capacity along with liquid sulphur degassing capability. Siirtec Nigi is commissioned to seek solutions for these goals. Detailed studies by Siirtec Nigi have shown that the best route is to modify the existing SCOT unit to process the tail gas produced by three Claus Units operating either with atmospheric air or with enriched air and to fit degassing facilities for the full plant capacity. Siirtec Nigi will provide Eni with the extended basic design package for the plant modifications. This will also include a new logic and interlock system geared to provide the entire sulphur recovery complex with the desired degree of reliability and flexibility.

March 2001 - Italy: The integration of the IGCC Project at Eni's Sannazzaro refinery meant an increase in H₂S bearing acid gas and ammonia rich sour water gas entering the sulphur recovery unit. In addition, an SO₂ rich stream from the flue gas washing area needed to be treated and disposed of. Siirtec Nigi is asked to review the design of the existing SRU 2 and to provide a basic design package for the modifications needed to adapt SRU 2 to the new feed conditions. Siirtec Nigi's evaluation led to the application of oxygen enrichment technology (in association with Parsons/BOC) to achieve the goal. This project marks a further stage of the technology partnership between Siirtec



Nigi and Parsons/BOC.

March 2001 - Poland: Siirtec Nigi is awarded the sulphur recovery unit to be installed at Glimar Oil refinery in Gorlice. The contract, for the supply of licence, engineering, fabrication and supply of a 9.2 tpd Claus unit, HCR tail gas clean up unit, sulphur degassing and tail gas incinerator is part of the 80 million EUR Hydro-complex undertaken by Lurgi Oel & Gas Chemie, jointly with its Polish subsidiary Lurgi Bipronaft, to upgrade the refinery. The sulphur plant, to be fabricated in modules, is to be installed under the supervision of Siirtec Nigi in the first quarter of 2003. The plant will meet the strict environmental requirements of the national park where the refinery is located.

2000

July 2000 - Italy: ERG, in view of an expansion project for its oil refinery in Priolo, has commissioned Siirtec Nigi to provide a basic design package for the revamp of the refinery Claus and Maxisulf units. The goal is the increase of the plant capacity by 15% due to the flow rate increase of the amine acid gas. The increase in capacity is achieved by applying Siirtec Nigi's low oxygen enrichment technology.

June 2000 - Libya: Siirtec Nigi has completed the front end engineering and design (FEED) of the sulphur recovery plant of the Mellitah Treating Plant awarded by Agip Gas BV, the field operator for the Western Libya Gas Project. Siirtec Nigi's package is to be incorporated into the overall FEED which is under development by Technip. The sulphur recovery plant designed by Siirtec Nigi comprises three identical trains each having a design capacity of 270 tpd of sulphur and includes the MDEA based acid gas enrichment, Claus unit, tail gas clean up unit, sulphur degassing, thermal incinerators and sour water strippers.

1999

December 1999 - India: Siirtec Nigi is awarded the turnkey contract for the Sulphur Block project for state owned Indian Oil Corporation (IOCL) at the Guwahati Refinery in the State of Assam. This is part of a major Hydrotreating Project by IOCL and includes an amine treating unit, sour water stripper, Claus unit, sulphur degassing, thermal incinerator and related off-sites and utilities. Siirtec Nigi will maximise the Indian content of the project by sourcing most of the equipment and materials from local manufacturers and involving local sub-contractors both for engineering and erection activities. Working in the remote and land locked Assam State will be a major challenge, in addition to its world record rainfall and its peculiar social conditions. The Sulphur Block project is part of the IOCL's programme to upgrade its refineries to comply with the recent and more restrictive Indian air pollution limits. This is the fourth Sulphur Block turnkey project awarded to Siirtec Nigi in India in the last two years.



March 1999 - Italy: Saras Sarroch Refinery in Sardinia needs to revamp its three sulphur recovery units to increase the sulphur recovery capacity by 60% to 734 tpd. Oxygen enrichment is found to be the best solution and Parsons/BOC SURE technology is selected for the project. Siirtec Nigi provides engineering services and fabricates the oxygen burners under licence from BOC.

1998

August 1998 - Hungary: MOL, the country's largest oil refiner, decides to expand its production capacity at its Szazhalombatta Refinery and to install a fourth sulphur removal unit. As with two previous systems, it hires Siirtec Nigi for the job and chooses its HCR technology for the tail gas clean up unit.

July 1998 - Italy: Venice, the world's most famous city of art, has many serious problems, including air pollution. AGIP therefore decides to further reduce the sulphur emissions in its Porto Marghera Refinery, which sits on the outskirts of Venice. Project specifications are strict and time is short. The HCR technology succeeds and Siirtec Nigi is commissioned to build the turnkey plant.

March 1998 - India: Siirtec Nigi is awarded the third turnkey contract of the eight planned by the Indian refineries to meet the environmental laws recently enforced by the Indian government. This sulphur removal plant will be installed in the HPCL's Visakhapatnam Refinery. Once again Larsen & Toubro will be the main subcontractor in charge of the local activities.

1997

December 1997 - India: Siirtec Nigi is awarded the sulphur recovery plant of the Madras Refineries Ltd in Chennai. The implementation of this fast-track turnkey contract will follow the same approach of the contract recently received from BPCL, and Larsen & Toubro will be the main subcontractor for the execution of the local engineering, supply and construction activities.

October 1997 - India: The Indian Government tackles the issue of industrial pollution in its major cities and passes a law for the immediate installation of sulphur removal units in eight of its largest refineries. Siirtec Nigi is awarded the contract for the sulphur removal plant at the Bharat Petroleum Co. Ltd refinery in Mumbai. The project has a tight schedule and the contract is on turnkey basis, one of the first of this type in India. Indian content will be maximized by involving Larsen & Toubro, a major Indian contractor, for engineering, supply and construction activities.

August 1997 - Sweden: Nynas AB needs to expand the capacity of the sulphur plant at its refinery in Nynashamn. A 37% increase in throughput is required and oxygen enrichment is found to be the most cost effective route. Siirtec Nigi will provide the solution by employing the SURE technology



licensed by Parsons. The revamp involves modifications to the reaction furnace and the provision of a proprietary oxygen burner and control system.

June 1997 - Italy: API Energia decides to convert high sulphur petroleum residues from its nearby oil refinery into an energy source. An investment of approximately 700 million USD is needed to build an environmentally clean IGCC tar gasification plant whose end product will feed its power plant supplying energy to the national network. ABB Lummus is selected as the main contractor. Two 75 tpd Claus plants are specified using SURE technology with pure oxygen plus a common 140 tpd BSR tail gas treatment unit. Siirtec Nigi is awarded the contract to design and supply the sulphur recovery complex.

May 1997 - Italy: Exxon Chemical Mediterranea must increase the capacity of its gas sweetening system by amine absorption in its chemical plant, a difficult job because the sulphur-rich gas has a highly fluctuating capacity. The existing plant, which was built by Siirtec Nigi, must be expanded and rendered more efficient. Once again, Siirtec Nigi is commissioned to design this unit.