



[www.heatfluxindia.com](http://www.heatfluxindia.com)

# **FURNACE IMPROVEMENTS SERVICES REFERENCE LIST**



www.heatfluxindia.com

## SUPPLY OF NEW HEATERS

- 1. Client** : Citgo  
**Location** : Corpus Christi, TX  
**Project** : FIS-247: Design, Engineering & Supply of a Combined Feed Heater
- 2. Client** : Phillips 66  
**Location** : Roxana, IL  
**Project** : FIS-269D: Design, Engineering & Supply of a Vacuum Heater (H-28)
- 3. Client** : Devon Energy  
**Location** : Riverton, WY  
**Project** : FIS-279: Design, Engineering, Supply & Erection of Hot Oil Heater
- 4. Client** : Phillips 66  
**Location** : Roxana, IL  
**Project** : FIS-286B: Design, Engineering, Fabrication and Supply of a 165 MMBtu/hr Hot Oil Heater
- 5. Client** : NTS Systems  
**Location** : Albuquerque, NM  
**Project** : FIS-379: Design and Engineering of 2 new Air Heaters
- 6. Client** : Staatsolie  
**Location** : Paramaribo, Suriname  
**Project** : FIS-384: Design, Engineering, Supply of Visbreaker Charge Heater
- 7. Client** : Gladieux Processing  
**Location** : Huntington IN  
**Project** : FIS-392: Design, Engineering, & Supply of Hot Oil Heater
- 8. Client** : Sealion Technologies  
**Location** : Texas City, TX  
**Project** : FIS-394: Design, Engineering, Supply of a Reactor Heater
- 9. Client** : Fluor/ Sasol Chemicals (Ongoing)  
**Location** : Lake Charles, LA  
**Project** : FIS-439: Design, Engineering, Supply of a 126 MMBtu/hr Hot Oil Heater with APH, SCR and Ammonia System



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

- 1. Client** : Alon USA  
**Location** : Big Spring, TX  
**Project** : FIS 126: Revamp of Atmospheric Heaters 1H-1A/B/C and Vacuum Heater (2H-1)  
**Scope of Work** : Engineering & Project Services for Installation of Low NOx Burners in Atmospheric Heaters (1H-1A/B/C) and Vacuum Heater (2H-1)
- 2. Client** : Citgo  
**Location** : Corpus Christi, TX  
**Project** : FIS 183: No.4 Platformer Heater Efficiency Improvement and NOx Reduction (Split Flow)  
**Scope of Work** : Design, Engineering, & Project Services for Installation of New Convection Sections and New Low NOx Burners
- 3. Client** : Citgo  
**Location** : Corpus Christi, TX  
**Project** : FIS 187: Reboiler Trim Heaters Efficiency Improvement  
**Scope of Work** : Design, Engineering, Project Services for Installation of New Convection Sections
- 4. Client** : Husky Oil  
**Location** : Lima, OH  
**Project** : FIS 208: Crude Furnace NOx Reduction and Efficiency Improvement  
**Scope of Work** : Design, Engineering, & Project Services for Convection Upgrade Section Revamp an New Low NOx Burners
- 5. Client** : Phillips 66  
**Location** : Ponca City, OK  
**Project** : FIS 210: NOx Reduction Project for Reformer Furnace H-48  
**Scope of Work** : Design, Engineering and Project Services for Installation of Low NOx Burners
- 6. Client** : Alon USA  
**Location** : Big Spring, TX  
**Project** : FIS-224: FCCU Feed Preheater  
**Scope of Work** : Design, Engineering, & Project Services for Installation of Low NOx Burners



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

- |               |   |  |
|---------------|---|--|
| 7. Client     | : | Valero   |
| Location      | : | Texas City, TX   |
| Project       | : | FIS-242: NHT and Platforming Heaters Capacity Increase with Patented Split Flow Technology   |
| Scope of Work | : | Design, Engineering, & project Services for New Split Flow Convection Sections and Low NOx Burners   |
| 8. Client     | : | Valero   |
| Location      | : | Wilmington, CA   |
| Project       | : | FIS-248: Platformer Heater Capacity Increase with patented Split Flow Technology   |
| Scope of Work | : | Design, Engineering, & Project Services of New Split Flow Convection Section   |
| 9. Client     | : | Phillips 66  |
| Location      | : | Belle Chasse, LA   |
| Project       | : | FIS-254C: NOx Reduction in Crude Heater  |
| Scope of Work | : | Design, Engineering & Project Services for Waste Heat Recovery unit, modification of existing convection section and upgradation of FD & ID Fans     |
| 10. Client    | : | Valero   |
| Location      | : | Port Arthur, TX  |
| Project       | : | FIS-255: Capacity Increase Revamp Project for Charge Heater  |
| 11. Client    | : | Alon USA   |
| Location      | : | Big Spring, TX   |
| Project       | : | FIS 260: Capacity Improvement of Reactor Charge Heater (080-H-001)   |
| Scope of Work | : | Design, Engineering, Supply and Commissioning of a Split Flow Convection Section   |
| 12. Client    | : | Phillips 66  |
| Location      | : | Borger, TX   |
| Project       | : | FIS-263B: U40 Boiler NOx Reduction Project   |
| Scope of Work | : | Design, Engineering, & Project services for revamp of CO Boiler (U-40) involving New Super-Heater, Economizer, Ultra Low NOx Burners, and FGR system |



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

<b>13. Client</b>	:	Phillips 66
<b>Location</b>	:	Roxana, IL
<b>Project</b>	:	FIS-266C: Alky Heater (HM2) NOx Reduction Project
<b>Scope of Work</b>	:	Design, Engineering, Fabrication & Supply for revamp of Alky Heater (HM2) involving New Convection Section, and Ultra Low NOx Burners. (Turn Key)
<b>14. Client</b>	:	Alon USA
<b>Location</b>	:	Big Spring, TX
<b>Project</b>	:	FIS-275: Replacement of FCC Feed Preheater
<b>Scope of Work</b>	:	Design, Engineering, & Project Services for Installation of Upgraded Convection Section
<b>15. Client</b>	:	Valero
<b>Location</b>	:	Texas City, TX
<b>Project</b>	:	FIS-280: CDHDS Reboiler Heater (H-60) Efficiency Improvement
<b>Scope of Work</b>	:	Design, Engineering & Project Services for Revamp of Convection Section and Stack Extension
<b>16. Client</b>	:	CountryMark CO-OP
<b>Location</b>	:	Mt. Vernon, IN
<b>Project</b>	:	FIS-283: Vacuum Heater 200-H4 Capacity Increase
<b>Scope of Work</b>	:	Design, Engineering, Project Services for Radiant Section Revamp, New Convection Section and Ultra Low NOx Burners.
<b>17. Client</b>	:	Lion Oil Eldorado Refinery
<b>Location</b>	:	Eldorado, AR
<b>Project</b>	:	FIS-290: NOx Reduction Project
<b>Scope of Work</b>	:	Design, Engineering, & Project Services for Installation of Ultra Low NOx Burners in six heaters
<b>18. Client</b>	:	Alon USA
<b>Location</b>	:	Big Spring, TX
<b>Project</b>	:	FIS-303A: ULSG Hydrogen Heater Efficiency and Capacity Increase (77H-001)
<b>Scope of Work</b>	:	Design, Engineering, Procurement and Fabrication of New Convection Section and Stack



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

- |                      |   |   |
|----------------------|---|---|
| <b>19. Client</b>    | : | Alon USA  |
| <b>Location</b>      | : | Big Spring, TX  |
| <b>Project</b>       | : | FIS-303B: Naphtha Stabilizer Reboiler Heater Capacity Increase (77H-002)  |
| <b>Scope of Work</b> | : | Design, Engineering, & Project Services for New Convection Section  |
| <hr/>                |   |   |
| <b>20. Client</b>    | : | Alon USA  |
| <b>Location</b>      | : | Big Spring, TX  |
| <b>Project</b>       | : | FIS-311: Installation of New RFG Package Boiler   |
| <b>Scope of Work</b> | : | Detail Engineering, Foundation Design, Structural Calculation and Design, Piping, Piping Stress Analysis, Shop Drawings and Fabrication of Stack  |
| <hr/>                |   |   |
| <b>21. Client</b>    | : | CountryMark CO-OP   |
| <b>Location</b>      | : | Mt. Vernon, IN  |
| <b>Project</b>       | : | FIS-314: Naphtha Splitter Reboiler Capacity Increase  |
| <b>Scope of Work</b> | : | Design, Engineering, & Project Services for Old Platformer Charge Heater to Naphtha Splitter Reboiler. Modification of New Radiant Coils, Tube Supports, New End Wall Fired Burners, Replacement of Existing Convection Section and Stack |
| <hr/>                |   |   |
| <b>22. Client</b>    | : | Phillips 66   |
| <b>Location</b>      | : | Roxana, IL  |
| <b>Project</b>       | : | FIS-315B: HDU-H1 Heater Revamp  |
| <b>Scope of Work</b> | : | Design, Engineering, & Supply of Crossover Pipes & SS Radiant Coils for the metallurgy upgrade in the HDU-2 H1 Charge Heater  |
| <hr/>                |   |   |
| <b>23. Client</b>    | : | Phillips 66   |
| <b>Location</b>      | : | Roxana, IL  |
| <b>Project</b>       | : | FIS-320: Duct Work (CR-1 and HCU)   |
| <b>Scope of Work</b> | : | Design, Engineering, Fabrication and Supply of Large diameter Flue Gas Outlet Ducts with Dampers and Guillotine Blinds  |
| <hr/>                |   |   |
| <b>24. Client</b>    | : | HPCL  |
| <b>Location</b>      | : | Vizag, Andhra Pradesh   |
| <b>Project</b>       | : | FIS-333: Capacity Improvement of Crude and Vacuum Heaters   |



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

25. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-335: NOx Reduction & Capacity Increase of CR-3 Unit Heaters (H-4 & H-5)
Scope of Work	:	Design, Engineering, Using Split Flow Technology & Supply of New Convection section, stack with leak type dampers, new floor, plenum and Ultra Low NOx Burners
26. Client	:	HPCL
Location	:	Vizag, Andhra Pradesh
Project	:	FIS-339: Capacity Improvement of FRE APS and VPS Heaters
Scope of Work	:	Design, Engineering, Supply of New Convection section and Replacement of Existing Burners
27. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-360B: Coker Preheater Revamp
Scope of Work	:	Design & Engineering for Revamp of Coker Pre-heater (H-36) for upgrading metallurgy of radiant coil and provision of a new Convection section and Crossovers
28. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-366B: H-2 Heater Rerating
Scope of Work	:	Design, Engineering, Fabrication & Supply for Revamp of First Inter-Reactor Heater (H-2) involving Convection Section Coil and Header box modifications
29. Client	:	CountryMark
Location	:	Mount Vernon, IN
Project	:	FIS-367C: 210-H100 DHT Heater Revamp Capacity Increase
Scope of Work	:	Design, Engineering, Supply and Erection work for DHT Heater revamp
30. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-373: Oil Coil Metallurgy upgrade in CCU1 CO Boiler
Scope of Work	:	Design, Engineering, Fabrication & Supply of Inco Alloy hairpins





www.heatfluxindia.com

## HEATER REVAMP PROJECTS

31. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-373B: New Gas Burners for CO Boiler
Scope of Work	:	Design, Engineering & Supply of New burners in CO Boiler
32. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-374: CAU H 503 Heater Revamp
Scope of Work	:	Design, Engineering & Supply of Cross over Pipes & New Radiant Coil Hairpins
33. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-375: Waste Heat Boiler for SCR Installation
Scope of Work	:	Design, Engineering, Fabrication & Supply of Waste Heat Boiler for an SCR Unit
34. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-399: New Gas Burners for CO Boiler
Scope of Work	:	Design, Engineering, CFD Modeling & Supply of Raw gas burners in CCU-2 CO Boiler
35. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-401C: Convection Section and Stack for DHT Heater
Scope of Work	:	Design, Engineering, Fabrication & Supply of New Convection Section and Stack
36. Client	:	Phillips 66
Location	:	Sweeny, TX
Project	:	FIS-402: Atmospheric Charge Heater 9F-4
Scope of Work	:	Design, Engineering, & Supply of Atmospheric Charge Heater 9F-4





www.heatfluxindia.com

## HEATER REVAMP PROJECTS

- |               |   |  |
|---------------|---|--|
| 37. Client    | : | Holly Frontier   |
| Location      | : | Eldorado, KS   |
| Project       | : | FIS-410B: Coker Heater (B-2609) Burners Modification   |
| Scope of Work | : | Replacement of Burner tips and Pressure Drop Plates for Coker heater Burners   |
| 38. Client    | : | Phillips 66  |
| Location      | : | Wood River, IL   |
| Project       | : | FIS-425 HCU Main Fractionator Reboiler Heater H-3 Revamp   |
| Scope of Work | : | Design Engineering, Procurement, Fabrication & Supply of New Radiant coils and New Convection Section with 6" NPS coils in HCU Main Fractionator Reboiler Heater |
| 39. Client    | : | Phillips 66  |
| Location      | : | Roxana, IL   |
| Project       | : | FIS-427 DU-2 Crude Heaters F-202 & F-203   |
| Scope of Work | : | Design Engineering, Procurement, Fabrication & Supply of New Radiant coils and New Convection Section with 6" NPS coils in the DU-2 Crude Heaters                |
| 40. Client    | : | Phillips 66  |
| Location      | : | Roxana, IL   |
| Project       | : | FIS-301C: Ultra Low NOx Burners for Crude Heater (H-24)  |
| Scope of Work | : | Design, Engineering, Fabrication & Supply of Burners and Heater Floor  |
| 41. Client    | : | Valero   |
| Location      | : | Texas City, TX   |
| Project       | : | FIS-428 H-16 Crude Heater Revamp with FIS Patented Inclined Burners  |
| Scope of Work | : | Design Engineering, and Supply of New burners, floor, and plenum with FIS patented inclined burner arrangement, new FD fan, Hot Air and Flue gas ducts           |
| 42. Client    | : | Alon Big Spring Refinery   |
| Location      | : | Big Spring, TX   |
| Project       | : | FIS-435 Boiler #23 Up-gradation Project  |
| Scope of Work | : | Design, Engineering and Supply of New Burner, Economizer and SCR System complete with Reactor, Ammonia Package Control System and Ammonia Injection Grid         |



www.heatfluxindia.com

## HEATER REVAMP PROJECTS

<b>43. Client</b>	:	CITGO
<b>Location</b>	:	Corpus Christi, TX
<b>Project</b>	:	FIS-444 41-H-1 and 41-H-2 APH System Revamp
<b>Scope of Work</b>	:	Design, CFD Modeling, Engineering, Demolition and Construction Services to replace the existing Air Preheater System for 41-H-1 and 41-H-2 Heaters

## ENGINEERING STUDIES

<b>1. Client</b>	:	Alon USA
<b>Location</b>	:	Big Spring, TX
<b>Project</b>	:	FIS-125: Engineering Study of Crude and Vacuum Heaters
<b>2. Client</b>	:	LyondellBasell
<b>Location</b>	:	Houston, TX
<b>Project</b>	:	FIS-128: Engineering Study of Crude Heaters (6-F-1 A/B)
<b>3. Client</b>	:	LyondellBasell
<b>Location</b>	:	Houston, TX
<b>Project</b>	:	FIS-141: Tuning of Heaters
<b>4. Client</b>	:	Alon USA
<b>Location</b>	:	Big Spring, TX
<b>Project</b>	:	FIS-157A/B: Engineering Study of Crude Heater (1H-1A) and Vacuum Heater (2H-1)
<b>5. Client</b>	:	Air Products
<b>Location</b>	:	La Porte, TX
<b>Project</b>	:	FIS-168: Field Survey/Recommendation for Oxygen Analyzers in Feed Preheaters
<b>6. Client</b>	:	Phillips 66
<b>Location</b>	:	Borger, TX
<b>Project</b>	:	FIS-172: Engineering Study for Reducing Coking in a Crude Heater
<b>7. Client</b>	:	Air Products
<b>Location</b>	:	La Porte, TX
<b>Project</b>	:	FIS-179: Engineering Study for POX Unit Heaters



www.heatfluxindia.com

## ENGINEERING STUDIES

- |            |   |   |
|------------|---|---|
| 8. Client  | : | Phillips 66   |
| Location   | : | Roxana, IL  |
| Project    | : | FIS-185: Engineering Study for Design of a New Convection section and Recommendations for Improved Performance of CFHT Heater |
| 9. Client  | : | Phillips 66   |
| Location   | : | Roxana, IL  |
| Project    | : | FIS-188: Process Design for CCU1 CO Heater Convection Section Replacement   |
| 10. Client | : | Air Products  |
| Location   | : | La Porte, TX  |
| Project    | : | FIS-191: Survey of LOX Vaporizer  |
| 11. Client | : | LyondellBasell  |
| Location   | : | Houston, TX   |
| Project    | : | FIS-212 Vacuum Heater (6F-2) Study  |
| 12. Client | : | Phillips 66   |
| Location   | : | Roxana, IL  |
| Project    | : | FIS-217: Rerating Report for Heat Medium Heater (H-35)  |
| 13. Client | : | Phillips 66   |
| Location   | : | Santa Maria, CA   |
| Project    | : | FIS-220: Field Survey Report (B-2B) Crude Heater  |
| 14. Client | : | Phillips 66   |
| Location   | : | Borger, TX  |
| Project    | : | FIS-231: Design and Engineering for Unit 9 Low NOx Burners  |
| 15. Client | : | Phillips 66   |
| Location   | : | Roxana, IL  |
| Project    | : | FIS-236: Rerating of Platformer Charge Heater (F-1) /Reactor Fired Heater (F-101)   |
| 16. Client | : | Phillips 66   |
| Location   | : | Trainer, PA   |
| Project    | : | FIS-246: Engineering Study to Increase Capacity of Isocracker Charge Heater   |



www.heatfluxindia.com

## ENGINEERING STUDIES

- |                   |   |   |
|-------------------|---|---|
| <b>17. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Roxana, IL  |
| <b>Project</b>    | : | FIS-250: Evaluation and Re-rating of the H-1 fired heater for KHT Revamp Project. Detailed Engineering & Project Services for Burner Replacement in CFHT Heater |
| <b>18. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Roxana, IL  |
| <b>Project</b>    | : | FIS-251: Re-rating Study for CCU2 CO Heater   |
| <b>19. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Roxana, IL  |
| <b>Project</b>    | : | FIS-253: Energy Audit of 4 Fired Heaters  |
| <b>20. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Belle Chasse, LA  |
| <b>Project</b>    | : | FIS-258: Engineering Study for NOx Reduction and Efficiency Improvement for Alkylation Unit Reboiler Heaters (491-H-1 & 491-H-2)                                |
| <b>21. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Roxana, IL  |
| <b>Project</b>    | : | FIS-259: CR-3 Process Heaters (H-4/5/6) - NOx Reduction Study   |
| <b>22. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Borger, TX  |
| <b>Project</b>    | : | FIS-263B: Engineering Study to convert Unit 40 CO Boiler to Fuel Gas Fired Boiler   |
| <b>23. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Roxana, IL  |
| <b>Project</b>    | : | FIS-269: Engineering Study for Vacuum Heater (H-28) and Transfer Line Rerating  |
| <b>24. Client</b> | : | Phillips 66   |
| <b>Location</b>   | : | Los Angeles, CA   |
| <b>Project</b>    | : | FIS-270: Performance Improvement Study for Vacuum Heaters H-33/34   |



www.heatfluxindia.com

## ENGINEERING STUDIES

25. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-271: CCU-1/CCU-2 Steam Drums Re-Rate Study
26. Client	:	Phillips 66
Location	:	Rodeo, CA
Project	:	FIS-272: Capacity & Efficiency Improvement Study of Crude and Vacuum Heaters (B-601 & B-602)
27. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-276: Re-rating for SCR Installation in CCU2 CO Heater
28. Client	:	Phillips 66
Location	:	Belle Chasse, LA
Project	:	FIS- 285: NOx Reduction in Heaters 1391-H-4, 1791-H-1 and 291-H-2 Engineering
29. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-286: BEU Heat Medium Heater (H3) NOx Reduction
30. Client	:	Phillips 66
Location	:	Borger, TX
Project	:	FIS-291: SCR Installation Feasibility Study on Steam Methane Reformer
31. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-292: Engineering Study for Reducing NOx in Boiler No. 15
32. Client	:	Phillips 66
Location	:	Trainer, PA
Project	:	FIS-297: Engineering Study of Fractionator Heater
33. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-301: Process Design Package for retubing of Crude Heater (H-24)



www.heatfluxindia.com

## ENGINEERING STUDIES

34. Client	:	Alon USA
Location	:	Big Spring, TX
Project	:	FIS-303: Engineering Study of Naphtha Stabilizer Reboiler Heater (H-1002)
35. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-315: Process Design Package for NOx Reduction of HDU2 Heater (H-1)
36. Client	:	Phillips 66
Location	:	Ferndale, WA
Project	:	FIS-318: Efficiency Improvement Study for Depropanizer Reboiler Heater (17F-1)
37. Client	:	Phillips 66
Location	:	Wilhelmshaven, Germany
Project	:	FIS-323: Field Optimization of Three Fired Heaters (B1402, B1901 and B1201)
38. Client	:	Phillips 66
Location	:	Wilhelmshaven, Germany
Project	:	FIS-328: Engineering Study of Crude Heaters B-1101 and B1102
39. Client	:	Alon USA
Location	:	Big Spring, TX
Project	:	FIS-329: Engineering Study of 3 Reboiler Heaters
40. Client	:	Phillips 66
Location	:	Mont Belvieu
Project	:	FIS-347: Engineering Study of Boiler BO-202 for Reliability Assessment
41. Client	:	LyondellBasell
Location	:	Morris, IL
Project	:	FIS-352: NOx Reduction Study of Steam Superheater Furnace (11-HCC-113)
42. Client	:	IOCL, Bongaigaon
Location	:	Bongaigaon - India
Project	:	FIS-353: Efficiency Improvement Study CDU-I Crude Heater (11-17-001)



www.heatfluxindia.com

## ENGINEERING STUDIES

43. Client	:	Phillips 66
Location	:	Trainer, PA
Project	:	FIS-361: Burner Replacement Study for Diesel HDS Heater (F501)
44. Client	:	HPCL
Location	:	Mumbai, IN
Project	:	FIS-364: Engineering Study and Process Package for SEU
45. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-366: Modeling Study of CR-1 Heaters H-1 & H-2
46. Client	:	Belgian Refining Corp
Location	:	Antwerp, Belgium
Project	:	FIS-368: Engineering Study for B0702 Vacuum Feed Heater
47. Client	:	LyondellBasell
Location	:	Houston, TX
Project	:	FIS-370: Engineering Study for Capacity Improvement of Vacuum Heater (537-F-002)
48. Client	:	Total
Location	:	Antwerp. Belgium
Project	:	FIS-371: Efficiency Improvement Study of HDS-3 Hydrofiner Charge Heater (B-6101)
49. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-372: Engineering Study for CCU-1 Heater
50. Client	:	Total
Location	:	Leuna, Germany
Project	:	FIS-378: Engineering Study for Vacuum Heater 611-H-1002
51. Client	:	Total
Location	:	Zeeland Refinery, Vlissingen, Netherlands
Project	:	FIS-380A: Performance Improvement Study for Crude Heater 201-H-01





## ENGINEERING STUDIES

52. Client	:	Total
Location	:	Zeeland Refinery, Vlissingen, Netherlands
Project	:	FIS-380B: Performance Improvement Study for Vacuum Heater 301-H-01
53. Client	:	Lima Refining
Location	:	Lima, OH
Project	:	FIS-382: Engineering Study for NOx Reduction & Capacity Improvement of Crude & Vacuum Heater
54. Client	:	Citgo
Location	:	Corpus Christi, TX
Project	:	FIS-383: APH Study for Coker Heater
55. Client	:	Phillips 66
Location	:	Billings, MT
Project	:	FIS-395 A, B, C, & D: Engineering Studies of Crude Heater H-1, Vacuum Heater H-17, Steam reformer H-9401, and FCC Heater H-18 in Crude Service
56. Client	:	Total
Location	:	Port Arthur, TX
Project	:	FIS-396: Engineering Study of Air Preheating System of Crude Heaters H-202 A & B
57. Client	:	Husky
Location	:	Lima, OH
Project	:	FIS-400: Engineering Study of Hydrocracker Stabilizer Reboiler H-2003
58. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-401: Engineering Study of DHT Charge Heater F-1
59. Client	:	Phillips 66
Location	:	Sweeny, TX
Project	:	FIS-402: Engineering Study of Atmospheric Charge Heater 9F-4



www.heatfluxindia.com

## ENGINEERING STUDIES

- |            |   |   |
|------------|---|---|
| 60. Client | : | Phillips 66   |
| Location   | : | Roxana, IL  |
| Project    | : | FIS-404: Engineering Study of Unicracker Heaters: Recycle Hydrogen Gas Heater B-2 and Recycle Oil Heater B-5                                |
| 61. Client | : | Flint Hills   |
| Location   | : | Corpus Christi, TX  |
| Project    | : | FIS-406: Engineering Study of DHT-1 Charge Heater   |
| 62. Client | : | Qatargas  |
| Location   | : | Doha, Qatar   |
| Project    | : | FIS-407: Engineering Study for Condensate Heater 82-F1201, Charge Heater 82-F1501, Reactor Feed Heater 82-F1601, Stripper Reboiler 82-F1602 |
| 63. Client | : | Frontier  |
| Location   | : | El Dorado, KS   |
| Project    | : | FIS-410: Coker Charge Heater Study  |
| 64. Client | : | Alon USA  |
| Location   | : | Big Spring, TX  |
| Project    | : | FIS-411: Engineering study of C-8 Reboiler Heaters 026-H-001 & 026-H-002  |
| 65. Client | : | Alon USA  |
| Location   | : | Big Spring, TX  |
| Project    | : | FIS-413: Catalytic Feed Preheater Evaluation  |
| 66. Client | : | Plain Gas   |
| Location   | : | Cotulla, TX   |
| Project    | : | FIS-416: Performance Study of H821 Train 2 Hot Oil Heater   |
| 67. Client | : | LyondellBasell  |
| Location   | : | Clinton, Iowa   |
| Project    | : | FIS-417: Engineering Study for Tube Boilers LB-102 A&B  |



www.heatfluxindia.com

## ENGINEERING STUDIES

68. Client	:	CountryMark
Location	:	Mount Vernon, IN
Project	:	FIS-419: Capacity Improvement Study of Crude and Vacuum Heaters
69. Client	:	Phillips 66
Location	:	Roxana, IL
Project	:	FIS-420: Engineering Study of DU-2 Crude Heater F-202 / 203
70. Client	:	Mustang/ Ergon WVI
Location	:	Newell, WV
Project	:	FIS-421: Engineering Study of DU-2 Crude Heater F-202 / 203
71. Client	:	CH2E
Location	:	Hudson, CO
Project	:	FIS-422: Engineering Study for Pyrolysis heaters
72. Client	:	Qatargas
Location	:	Doha, Qatar
Project	:	FIS-423: Engineering Study For Condensate Heater, 81-F1201, NOx Minimization
73. Client	:	Marathon Petroleum
Location	:	Galveston, TX
Project	:	FIS-424 Engineering Study for NOx Reduction of Hot Oil Heater (B- 405) at Marathon Galveston Bay Refinery
74. Client	:	Phillips 66
Location	:	Lake Charles, LA
Project	:	FIS-426 FCC Charge Heater H-6 Study
75. Client	:	NARL
Location	:	Come by Chance, Canada
Project	:	FIS-430 Performance Improvement Study of Crude Heater (H- 1101)
76. Client	:	Safety Kleen
Location	:	Newark, CA
Project	:	FIS-431 Hot oil heater H-402



www.heatfluxindia.com

## ENGINEERING STUDIES

- |            |   |   |
|------------|---|---|
| 77. Client | : | Phillips 66   |
| Location   | : | Wood River, IL  |
| Project    | : | FIS-432 DU1 Heater O2 Nozzles   |
| 78. Client | : | Alon USA  |
| Location   | : | Big Spring, TX  |
| Project    | : | FIS-433 Catalytic Reformer Heater H-201, H-202, H-203, H-204 NOx Reduction Study      |
| 79. Client | : | Phillips 66   |
| Location   | : | Sweeny, TX  |
| Project    | : | FIS-436 Performance Improvement Study of Crude Heater 25.1- F-1                       |
| 80. Client | : | LyondellBasell  |
| Location   | : | Houston, TX   |
| Project    | : | FIS-437 Performance Improvement Study and CFD Modeling Study of Delayed Coker Heaters |
| 81. Client | : | Frontier  |
| Location   | : | El Dorado, KS   |
| Project    | : | FIS-438 Engineering Study of Unifiner Reactor Charge Heater H-H1                      |