

## AGFIS REFERENCE LIST

- FIS-242:** **Platformer & NHT Heaters**  
Client: Valero Texas City, TX  
Scope of Work: Design, engineering and project services for capacity improvement of Platformer and NHT Heaters.  
**AGFIS Scope:** Detail fabrication drawings for convection section & stack, coil drawings, M.R's and technical specifications for pressure parts, actuators, intermediate tube sheets & radiant supports.
- FIS-248:** **Platformer Heater**  
Client: Valero Wilmington, CA  
Scope of Work: Design, engineering and project services for capacity improvement of platformer heater using FIS patented Split Flow Technology.  
**AGFIS Scope:** G.A drawings, piping drawings, P&ID's, detail fabrication drawings, coil drawings, erection & dismantling drawings, STAAD analysis, 3D modeling, M.R's and technical specifications for pressure parts, burners, intermediate tube sheets & thermocouples.
- FIS-254C:** **Crude Heater (191-H-1)**  
Client: ConocoPhillips Belle Chasse, LA  
Scope of Work: Design, engineering & project services to reduce NOx Emissions Crude Heater.  
**AGFIS Scope:** G.A drawings, detail fabrication drawings, erection & dismantling drawings, FLP, refractory drawings, M.R's/data sheets and technical specifications for ID/FD fans, expansion bellows, dampers, soot blowers & tube seals, WHR, ITS, pressure parts, ducting & erection. STAAD analysis & lifting lug calculations.
- FIS-255:** **Reactor Charge Heater**  
Client: Valero Port Arthur, TX  
Scope of Work: Design, engineering & project services to increase capacity of Reactor Charge Heater.  
**AGFIS Scope:** G.A drawings, detail fabrication drawings, refractory drawings, M.R's/data sheets and technical specifications for pressure parts, burners & dampers.
- FIS-260:** **Reactor Charge Heater**  
Client: AlonUSA, Big Spring, TX  
Scope of Work: Design, engineering & project services for improving efficiency of crude heaters by using FIS patented Split Flow Technology  
**AGFIS Scope:** G.A drawings, detail fabrication drawings, refractory drawings, MTO calculations, M.R's/data sheets and technical specifications for pressure parts, ITS and shop fabrication.

<b>FIS-263:</b>	<b>Conversion of CO Boiler to Fuel Gas Fired Boiler</b>
Client:	ConocoPhillips Borger, TX
Scope of Work:	Conversion of Unit No. 40 CO Boiler to Fuel Gas Fired Boiler
<b>AGFIS Scope:</b>	G.A drawings, fabrication drawings, piping drawings, ducting drawings, erection & dismantling drawings, FLP, ASME code calculations, Civil/Structural steel analysis & design for FGR duct Support, economizer, steam super heater and new combustion air duct. Mechanical flow sheets, P&ID's, M.R's/data sheets and technical specifications for burners, FGR fan, economizer, damper, attemperator, ID/FD fans, APH, dampers, pressure parts, ducting, perforated plate & gratings.
<b>FIS-269D:</b>	<b>VF-4 Flasher Heater (H-28)</b>
Client:	ConocoPhillips Roxana, Illinois
Scope of Work:	Design and Supply of 42.82 MMBtu/hr new vacuum heater.
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, MTO calculations, STAAD analysis, 3D modeling, M.R's/data sheets and technical specifications for pressure parts, dampers, burners, safety gates, thermocouples, tube seals, radiant supports and shop fabrication.
<b>FIS-275:</b>	<b>FCCU Feed Preheater</b>
Client:	AlonUSA, Big Spring, TX
Scope of Work:	FCCU Feed preheater replacement
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, M.R's/data sheets and technical specifications for pressure parts, dampers & thermocouples.
<b>FIS-277:</b>	<b>Design Review</b>
Client:	Bechtel Houston, TX
Scope of Work:	Fired heater design and documentation review for Reliance Jamnagar Refinery.
<b>AGFIS Scope:</b>	Review of G.A drawings, coil drawings, foundation loading diagram, crossovers, P&ID's, base plate details, ITS design, APH data sheet, ID fan data sheets, heater data sheets, pressure part calculations, structural analysis for 3 heaters.
<b>FIS-279:</b>	<b>Hot Oil Heater</b>
Client:	Devon Energy Riverton, WY
Scope of Work:	Turnkey Supply of one new Hot Oil Heater
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, erection drawings, piping drawings, MTO calculations, STAAD analysis, M.R's/data sheets and technical specifications for pressure parts, actuators, burners, safety gates, thermocouples, tube seals, radiant supports, peep doors and shop fabrication.
<b>FIS-280B:</b>	<b>CDHDS Reboiler</b>
Client:	Valero Texas City, TX
Scope of Work:	Design, engineering & project services for efficiency improvement

<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, erection & dismantling drawings, MTO calculations, M.R's/data sheets and technical specifications for pressure parts, ITS and shop fabrication.
<b>FIS-283:</b>	<b>Vacuum Heater</b>
Client:	Ambitech Engineering/ Countrymark Co-Op Mt. Vernon, IN
Scope of Work:	Design, engineering and project services for capacity increase.
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, erection & dismantling drawings, STAAD analysis, M.R's/data sheets and technical specifications for pressure parts, burners, ITS, thermocouples, tube seals, radiant supports, peep doors, shop fabrication and erection.
<b>FIS-286:</b>	<b>BEU Heater (H3)</b>
Client:	ConocoPhillips Roxana, Illinois
Scope of Work:	Design and supply of 165 MMBtu/hr new hot oil heater.
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, MTO calculations, STAAD analysis, M.R's/data sheets and technical specifications for pressure parts, dampers, burners, safety gates, thermocouples, tube seals, radiant supports and shop fabrication.
<b>FIS-287:</b>	<b>CCU-1 CO Heater</b>
Client:	ConocoPhillips Roxana, Illinois
Scope of Work:	Structural rerating, Coil & header box modifications
<b>AGFIS Scope:</b>	GA & fabrication drawings, erection & dismantling drawings for coil modification and header box. Load analysis, structural analysis and reinforcement design and 3D modeling.
<b>FIS 296:</b>	<b>Hydrogen Heater (77H – 001)</b>
Client:	AlonUSA, Big Spring, TX
Scope of Work:	Design and engineering of new convection section and stack for the ULSG Hydrogen Heater.
<b>AGFIS Scope:</b>	G.A drawings, detail fabrication drawings, refractory drawings, erection & dismantling drawings, STAAD analysis, lifting lug calculations, M.R's/data sheets and technical specifications for pressure parts, thermocouples, tube seals, shop fabrication and erection.
<b>FIS-303B:</b>	<b>Naphtha Stabilizer Reboiler Heater (77H-002)</b>
Client:	AlonUSA, Big Spring, Texas
Scope of Work:	Design and engineering for increasing the efficiency and capacity of the heater.
<b>AGFIS Scope:</b>	G.A drawings, coil drawings, detail fabrication drawings, refractory drawings, erection & dismantling drawings, STAAD analysis, lifting lug calculations, M.R's/data sheets and technical specifications for pressure parts, thermocouples, tube seals, shop fabrication and erection.