

Application**brief**

Eclipse Product: Flue Fire Burners
Submitted by: Douglas McDonald
Application: Supplemental Firing
Site Location: Utah State University

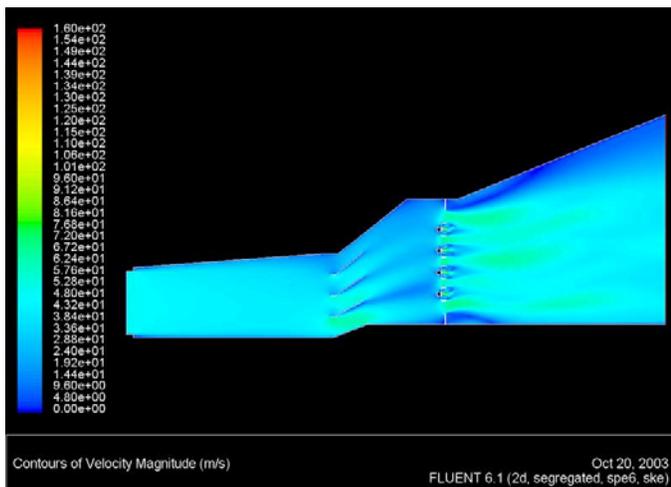
System Description: The burner is used to supply heat to exhaust gasses of a turbine upstream of a Heat Recovery Steam Generator. The system is designed to operate with the turbine only or with the turbine and supplemental duct burner. When the burner is not in operation, the main gas header is purged with 100 scfm of fresh air to prevent condensation of the turbine exhaust gasses within the main fuel gas header and manifolds. The project included a CFD Flow Analysis to insure proper distribution of the turbine exhaust at the burner.

Technical Data:

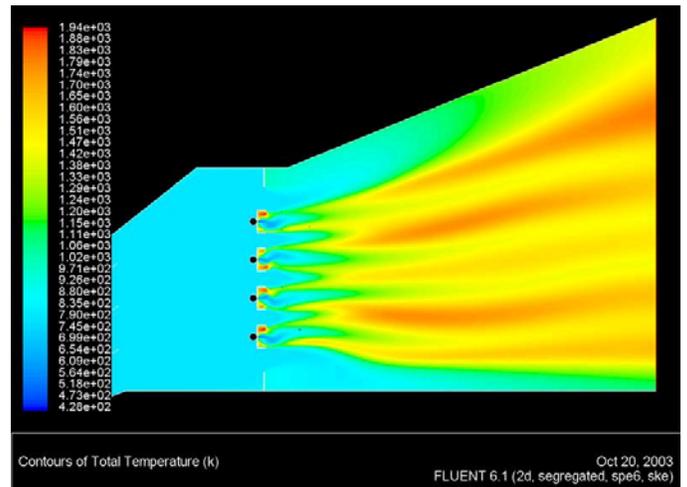
Turbine:	
Make:	Solar Turbines, Inc.
Model:	Taurus 60 T7801S
TEG:	
Flow:	161,446 lbs./hr
Oxygen Content:	14.63%, wet
Temperature In:	930 °F
Temperature Out:	1,610 °F
Burner:	
Type:	36 FFB FlueFire
Duty:	26.0 MMBtu/Hr
Fuel:	Natural Gas



Packaged FlueFire Burner prior to installation



Contours of Velocity Magnitude.



Contours of Total Temperature.

