

Application**brief**

Eclipse Product: Direct Fired Air Heater and Exothermic Heat Exchanger

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Application: Fume Incinerator and Heat Recovery

Description: Radiant Color of Richmond, California produces fluorescent pigments and colors that are used by manufacturers of all types of packaging materials to make the colors that glow to make the packaging more attractive and eye catching. This process involves the use of formaldehyde and the vapors must be captured from ovens and mixing kettles and thermally destructed at 1400°F to satisfy the Air Quality District of Northern California. The present equipment is too small for the production levels and so the customer needed to upgrade the first thermal oxidizer to a larger size. We supplied a direct fired air heater from Rockford that would handle the 2500 scfm of effluent from two ovens and various cooking kettles and we also supplied an Exothermic heat exchanger to capture the hot exhaust gases and preheat the incoming effluent.

The new system will handle all of the emissions from the various sources in this part of the plant and will easily maintain 1400°F operating temperature and reaches or exceeds the required destruction levels of the effluent stream. It also takes the heat that is left in the clean exhaust stream after it exits the thermal fluid heat recovery unit and it reduces operating costs by using the Exothermic heat recuperator to preheat the effluent stream and reduce the burner operating input and still maintain 1400°F chamber temperature.

The customer is very pleased. He is operating safely and satisfying all the proper authorities while operating at the highest output levels that all the related equipment can handle.



*Eclipse Direct Fired
Air Heater*

