



May 11, 2010

[jon.sacks@mirant.com](mailto:jon.sacks@mirant.com)

Jon Sacks  
Director, Development and Transactions  
Mirant Corporation  
1155 Perimeter Center West  
Atlanta, Georgia 30338-5416

Ref: Start-Up Sequence for Marsh Landing Project

Dear Mr. Sacks,

Enclosed please find a brief explanation of the SCR System's functional equipment evolutions and the associated durations necessary to ensure that the system operates safely and within the manufacturer's recommended guidelines. Due to the complexity and size of the various components involved, including tempering air fan isolation dampers, inlet vane dampers, vaporizer heater, etc., it is important that sufficient stroke, cycle, and heating times be incorporated to ensure safe and reliable equipment operation.

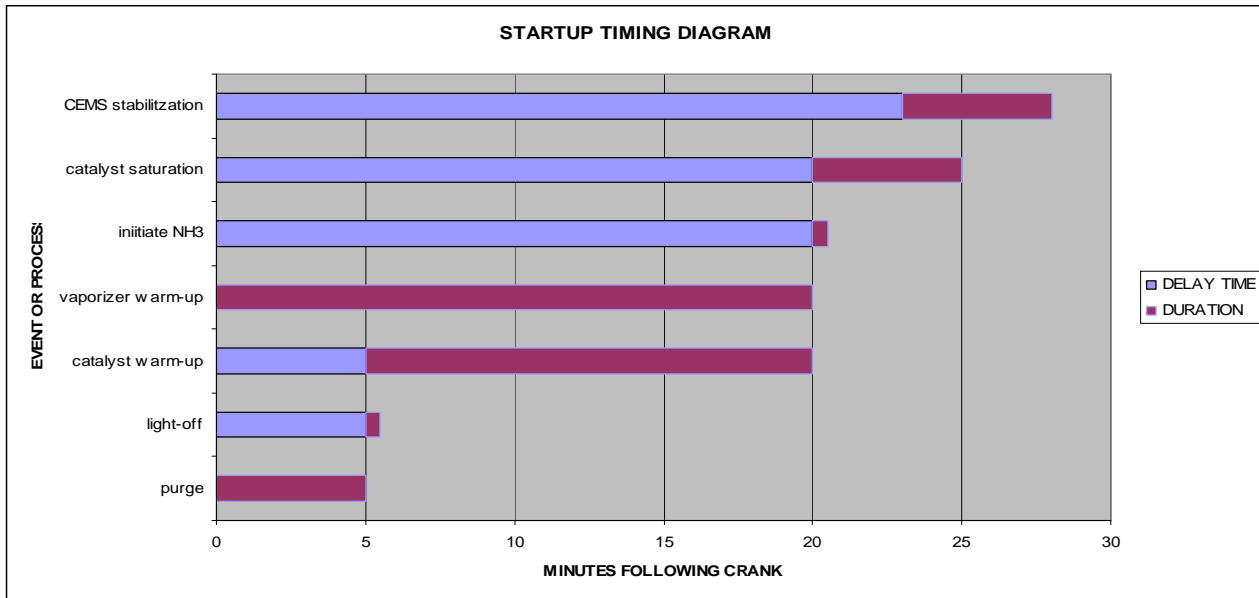
JMI projects the following start-up sequence for the Marsh Landing project:

- Initiate turbine purge, exhaust duct purge (TAS fan @ max flow) – 0 minute plus 5 minutes duration.
- TCS drives tempering fan inlet damper to close position - 5 minutes plus 1 minute duration.
- TCS initiate light off and tempering fan set to temperature control - 6 minutes plus one minute duration.
- TCS initiate turbine start-up of vaporizer (vaporizer heater/dilution fan) - 0 minute plus 20 minutes duration heat-up time (vaporizer heater).
- When flue gas temperature at SCR catalyst rises to minimum permissible, set temperature permissible for NH<sub>3</sub> injection, approximately – 0 minute plus 20 minutes duration.
- When vaporizer inlet air temperature rises to design temperature, set vaporizer temperature permissible for NH<sub>3</sub> injection - 0 minute plus 15 minutes duration.
- As long as all other NH<sub>3</sub> permissives remain set, the control system will open the NH<sub>3</sub> isolation valve and begin positioning the NH<sub>3</sub> control valve - 16 minutes plus 1 minute duration.
- Catalyst saturated with ammonia - 20 minutes plus 3 minutes duration.
- CEMS begins seeing NOx reduction reaction – sampling rate plus 2 minutes duration.
- CEMS begin trim control for feedback loop for stabilizing approximately – 23-25 minutes duration.



- Total cycle time duration from start-up initiate through compliance – approximately 28 minutes duration.

The timing of the above sequence follows the schedule presented below:



JMI supports the conclusion that compliance can be achieved within 30 minutes of start-up.

Please feel free to call us if you have further questions.

Best regards

*Robert McGinty*

Robert McGinty  
Sales Manager

