

**Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area  
Response to Stakeholder Informal Comments  
Revised Rulemaking Concepts for Major ICI Sources,  
Electric Generating Facilities, and East Texas Combustion**

Staff solicited informal stakeholder comments on the proposed specifications and control technologies during the June 20-21 stakeholder meetings in DFW and on the DFW SIP website. Informal comments received by September 15 have been reviewed and are summarized below. Technically sound emissions and process production data, previously unavailable to the commission, were provided with some of the industry comments and were studied and considered as a basis for revising the proposed emission specifications. In addition, industry comments demonstrated that the emission specifications and definitions of certain unit types regulated in the Houston-Galveston-Brazoria (HGB) area were inappropriate for units with the same or similar names in the DFW area.

**Stakeholder Comments - DFW Eight-Hour 117 Rule Proposal**

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
Regenerative Fiberglass Melting Furnaces	1.8 lb/ton as requested limit – data shows operating range of 1.4 to 1.8 lb/ton	1.25 lb/ton	Revise ESAD to 1.45 lb/ton. BACT is assumed to be 1.4 lb/ton.
Glass Melting Furnaces	No action or at most 3.8 lb/ton as RACT	1.2 lb/ton as 80% reduction	Revise to 1.30 lb/ton based on oxy-fuel as per EPA Consent Decree.

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
Lime Manufacturing Kilns	0.66 lb/ton impossible for lime manufacturing – HGB limit based on lime recovery furnaces	0.66 lb/ton	Revise ESAD to 3.1 lb/ton. BACT is assumed to be 3.5 lb/ton as good combustion practices & kiln operation, possibly combined with low NO <sub>x</sub> burners.
Reheat and Electric Arc Furnaces	Retain permitted BACT limit of 0.21 lb/MMBtu with LNB and preheated air and remove Electric Arc Furnaces (EAF) from rule	0.062 lb/MMBtu for reheat 0.3 lb/ton for EAF 0.082 lb/MMBtu for heattreat	Revise to 0.10 lb/MMBtu based on ultra-low NO <sub>x</sub> burners. BACT range 0.07 to 0.21 lb/MMBtu. No change to EAF/heattreat limits.
Brick and Ceramic Kilns - NCTCOG brick kiln study	LNB may not yield specified reductions due to thermal NO <sub>x</sub> and would adversely affect product quality; reconsider NCTCOG recommendations	0.175 lb/ton brick based on NCTCOG study of 50% reductions	Brick and ceramic kilns of 5.0 MMBtu/hr will be exempted.  No change to ESAD based on comments. 50% reductions could be achieved with staged firing, LNB, excess air and leak control, and good combustion practices.

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
Large Boilers >100MMbtu/hr	<p>Consider cost</p> <p>Limits should not apply for SMSS</p> <p>Exempt heating and humidifying boilers</p> <p>Exempt fuel oil firing during NG shortage</p> <p>Exempt engines used for emergency and back-up</p>	<p>0.02 lb/MMBtu for boilers &gt; 100MMbtu/hr</p> <p>Diesel engines used for emergency or low usage are exempt</p> <p>Fuel oil firing exemption during NG shortage for EGUs only by official ERCOT notice</p>	<p>No change based on heating/humidifying usage.</p> <p>No change regarding low-use units. The proposed rule has alternative emission specifications for low annual capacity factor units that address low use units.</p> <p>No change regarding emergency engines – they are exempt.</p>
Small DFW Utility	No new limits for small DFW utility systems-SCR will cause small systems to shutdown	0.033 lb/MMBtu for small system with no system cap	Revise to existing 0.06 lb/MMBtu for small system; no system cap; efficiency/output based option included.

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
<p>East Texas Combustion</p>	<p>Agrees with 0.5 g/hp-hr on rich-burn over 500 hp</p> <p>2.0 g/hp-hr on 50 – 499 hp may be achievable</p> <p>1.5 g/hp-hr too stringent for lean-burn <math>\geq</math> 500 hp</p> <p>Claiming most new lean are 5.0 for 4-stroke and 2.0 for 2-stroke</p> <p>Suggested averaging, credits voluntary controls (used credits for DFW)</p> <p>Commented on inclusion of Wise, Hood, and Somervell counties</p> <p>Separate comment letter expressed support for Devon's comments.</p>	<p>2.0 g/hp-hr for engines 50 – 499 hp</p> <p>0.5 g/hp-hr (0.6 g/hp-hr on landfill gas-fired) for rich-burn engines <math>\geq</math> 500</p> <p>1.5 g/hp-hr for lean-burn engines</p>	<p>Recommend against averaging. Averaging on a g/hp-hr makes quantifying reductions on a tpd basis impossible.</p>

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
DFW Major Source Rule	<p>Engines - emission specs for gas-fired engines too strict for lean-burn</p> <p>Proposing  0.5 g/hp-hr on rich-burn  2.0 g/hp-hr existing lean-burn  1.0 g/hp-hr on new lean-burn  50 hp size cut off</p> <p>Process heaters – Need size cut of in rule for heaters less than 40 MMBtu/hr</p> <p>Proposing 5.0 MMBtu/hr for new, and 20 MMBtu/hr all existing process heaters</p>	<p>Engines- 0.5 g/hp-hr on all gas fired (except 0.6 on landfill)</p> <p>No size cut off in major source rule</p> <p>0.025 lb/MMBtu for process heaters <math>\geq</math> 40 MMBtu/hr</p> <p>0.036 lb/MMBtu for process heaters 2.0 – 39 MMBtu/hr</p> <p>Process heaters <math>\leq</math> 2.0 MMBtu/hr would be exempt</p>	<p>No change on engines. Stakeholder proposal would result in a loss of at least 0.6 – 1.0 tpd in reductions from gas-fired engines at major sources.</p> <p>No change on process heaters at this stage. May revisit during formal comment period.</p>

Unit/Industry Type Discussed	Stakeholder Request/Supporting Information	117 ESAD Proposed to Stakeholders	Staff Recommendation for Revised Specifications
DFW Minor Source Rule	<p>Engines - emission specifications for gas-fired engines too strict for lean-burn</p> <p>Proposing 0.5 g/hp-hr on rich 2.0 on new and existing lean-burn</p> <p>50 hp size cut off</p> <p>Process heaters – Need size cut off in rule proposing 5 MMBtu/hr for new, and exempting all existing process heaters</p>	<p>Engines- 0.5 g/hp-hr on all gas fired (except 0.6 on landfill)</p> <p>50 hp in rule already</p> <p>Process heaters- 0.036 lb/MMBtu for gas-fired</p> <p>0.072 lb/MMBtu for liquid-fired</p> <p>≤ 2.0 MMBtu/hr are exempt</p>	<p>No change regarding engines. Stakeholder proposal would result in a loss of at least 0.6 tpd in reductions from engines (minor source controls, as modeled, achieve approximately 3 tpd from gas-fired engines).</p> <p>No change on process heaters at this stage. 2.0 MMBtu/hr cut-off in the rule may address issues. Consider further during formal comment period.</p>
VOC RACT	Should allow IR imaging with I & M requirements		No change. Passed close of comments.

<b>Unit/Industry Type Discussed</b>	<b>Stakeholder Request/Supporting Information</b>	<b>117 ESAD Proposed to Stakeholders</b>	<b>Staff Recommendation for Revised Specifications</b>
East Texas Combustion Engine Rule	<p>Agree with 0.5 g/hp-hr for rich-burn</p> <p>Don't agree w/ 1.5 g/hp-hr for lean-burn</p> <p>Proposing 1.0 on small rich-burn (&lt;500) and 2.0 on all lean-burn</p> <p>Also proposed trading, or program similar to 116 grandfathered rule</p>	<p>50 – 499 hp 2.0 g/-hp-hr on rich-burn engines</p> <p>≥ 500 hp rich-burn 0.5 g/hp-hr (0.6 on landfill gas-fired)</p> <p>Lean-burn 1.5 g/hp-hr</p>	<p>Revise to:</p> <p>0.5 g/hp-hr for rich-burn ≥ 500 hp (0.6 g/hp-hr on landfill gas-fired)</p> <p>1.0 g/hp-hr for 50 – 499 hp engines</p> <p>2.0 g/hp-hr on existing lean-burn 1.5 g/hp-hr on all new lean-burn</p>