

EI Paso Stripper Operation and Maintenance to Meet TCEQ Chapter 115 Requirements* for Cooling Tower Water HRVOC Analysis

(*Revised October 22, 2003)

Introduction

Current rules require monitoring of cooling tower water to an MDL of less than 10 ppbw. This level is considerably lower than previously mandated. It requires greater validated control of the cleanliness of the EI Paso Stripper than ever before. No longer is a visual observation of dirt or algae growth in the stripper chamber sufficient to assess proper operation.

This Application Note is intended to serve as a guide for compliance with TCEQ Chapter 115 when using the EI Paso Stripper for cooling tower HRVOC analysis. It also describes alternative maintenance approaches.

Question: When do I know the EI Paso Stripper needs cleaning?

Answer: The following is a summary of tests for contamination and required TCEQ cleaning procedures.

TCEQ Rule	EI Paso Stripper Requirement	TCEQ Chamber Cleaning Rule
<i>Zero Air Blank Check</i>	Monitor stripping air flow through an empty stripper with previously calibrated detector. If background exceeds 1.0 ppmv referenced to methane, thoroughly clean stripper. Record results.	Chamber and Beryl Saddles to be cleaned with hot, soapy water, followed by 5 rinses of tap water, 5 rinses of distilled water, then baked off in an oven at 150C for at least 1 hour. Chamber may be air-dried if available oven too small.
<i>Water Blank Check</i>	Flow D.I. water through all sample lines & packed stripper. If background exceeds 1.0 ppmv referenced to methane, thoroughly clean stripper. Record results.	Note: <i>No correlation factors for offset may be used to compensate for a contaminated stripper, since it utilizes a reaction to completion, not an equilibrium gas stripping method.</i>

Chart 1

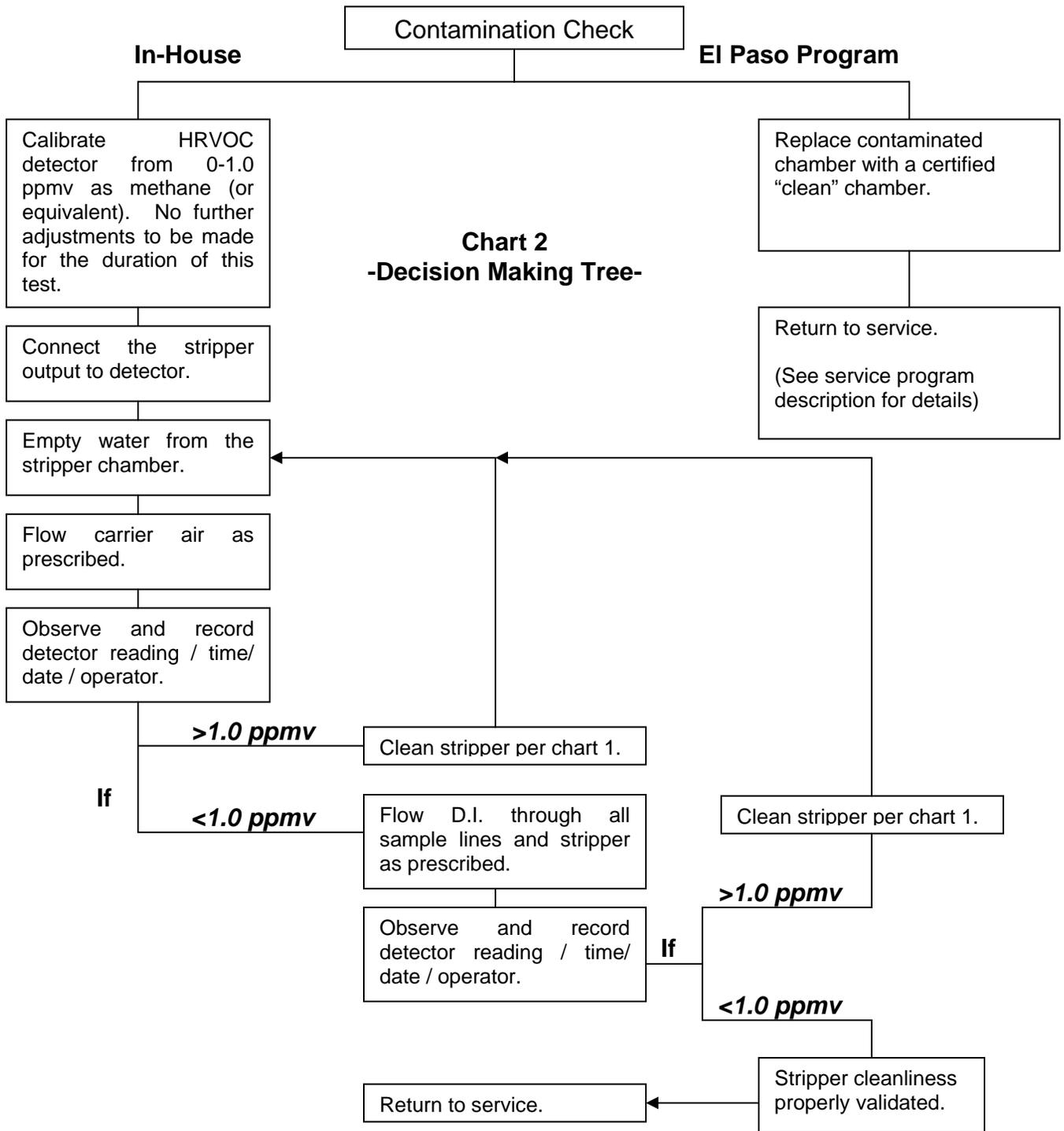
Question: Is there an easier way to determine when the chamber should be cleaned or checked for contamination?

Answer: **NO** The only valid test for determining if the chamber is contaminated is as defined in the above chart.

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Chart 2 shows both “In-house” and the El Paso Stripper Company service program for maintaining a clean El Paso Stripper.



Question: What other installation and maintenance services does the El Paso Stripper Company provide?

Answer: A full service package to provide certified “clean” replacement chambers and validation testing to satisfy all related TCEQ requirements (MDL testing, IOQ, and PQ protocols).

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