

**SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT**

DATE: May 4, 2010

TO: Interested Parties

SUBJECT: Frequently asked questions regarding compliance with Rule 4401, Steam-Enhanced Crude Oil Production Wells (Amended December 14, 2006)

Below are list of frequently asked questions and answers regarding compliance with Rule 4401. This list will be updated as needed.

For additional information, please see Rule 4401 available at www.valleyair.org.

Q1: What is the purpose for the Operator Management Plan (OMP) added with the latest rule amendment (Section 6.6)?

A1: Significant changes made to Rule 4401 include the addition of self inspections similar to Rules 4409 and 4455 (light oil and refinery components). The Operator Management Plans were required to support the self inspections by defining what is to be inspected, listing the number of components of various types, defining exempt and critical components, and establishing training and standards for personnel conducting the inspections.

Q2: Can the OMPs be revised?

A2: Yes, per Section 6.7. By January 30 of each year after the initial OMPs were required, an operator is required to submit a written report indicating any changes to the plan.

Q3: Are casing leaks coming up from around the outside of the casing exempt by virtue of being “components buried below ground” in Section 4.8.2?

A3: No. The casing or a portion thereof, is available for inspection and is not considered a buried component. Components that are not available for inspection such as pipelines are exempt according to Section 4.8.2. The casing is a pipe (one of the components defined in the rule), it carries the gasses subject to Rule 4401 and therefore the leaks must be repaired according to the rule requirements. It should also be noted that leaks from around the casing have historically been subject to enforcement activity and the revisions to Rule 4401

were not intended as a relaxation. It is also understood that the timelines for repair of leaks were significantly shortened with the rule amendment and that this makes it difficult to make repairs to casings. Please note that although the tight repair timelines were discussed during rule development, the rule amendments were approved. If more time is required to make repairs, a variance may be considered.

Q4: Can wells be considered process units as defined by Section 3.31, and can components on an individual well be considered Essential or Critical components as defined by Section 3.12 and 3.6, respectively?

A4: No. These definitions were added to the rule to mimic those in the light oil and refinery rules where, for example, a process unit comprises that portion of the plant that performs a specific process. In these settings, a process unit can not be shut in because of the importance to the overall plant. Shutting in a process unit to repair a leak would require a significant portion of the plant to be shut in. A critical process unit for example, is defined as having no equivalent replacement equipment. Production from a single well would not meet this requirement for all but the very smallest of producers. Taken to the extreme, identification of a well casing, the casing vents, casing vent valves, or the API Ring Flange as essential components would allow leaks from these components to be repaired up to one year from discovery according to Section 5.9.7. This would affect the repair dates for all wells subject to Rule 4401, and this extension is not the intent of the rule.

Q5: Are Process Drains considered open-ended lines?

A5: No. A process drain is a piping system designed to collect and transport liquids from process flows or spills to containment. An example is the drain on a compressor skid that transports rainwater and lube oil to a drain tank. These must be open to function, but are not considered open-ended lines per Section 3.29. Process drains will not be considered a violation simply because they are open. Leaks measured from process drains will count as leaks however.

Q6: If a well is equipped with a packer that isolates the casing from the production zone and produced gasses, does a closed casing vent valve, or a closed valve without a bull plug constitute an open-ended line?

A6: No. Per Section 3.23 an open-ended line has one side of the line or valve in contact with process fluid or gas and the other open to the atmosphere. In wells where a packer isolates that casing from the production zone and the produced gasses, the valve constitutes the "second line of defense". Leaks measured from these valves will count as leaks, and an open valve will also constitute a leak for a well not undergoing maintenance.

Q7: Some wells have requirements for regular chemical injection. Can these wells be equipped with a “quick-connect” fitting that seals the end of the line, provided that there is a second normally closed valve upstream?

A7: Yes. In these cases, the quick connect functions as the second valve. Provided that the upstream valve and the quick-connect are closed except during use, the quick connect does not constitute an open-ended line. Leaks measured from these fittings will still be counted as leaks.

Q8: Section 4.9 provides exemption from Sections 5.8.1 to 5.8.5 of the rule (Inspection and Re-inspection Requirements) for components handling material with <10% VOC by weight. How can an operator demonstrate they qualify for this exemption?

A8: A single sample will probably not be adequate to demonstrate the VOC content, especially for a large system. Please contact the District and discuss where samples are to be taken and how the proposed samples will provide an adequate representation of the material in the system.

Q9: Section 5.8.1 requires an annual inspection be conducted by the operator. Is this a year from the date the inspections begin or is it a calendar year?

A8: The Districts position is that the inspections must be done within each calendar year.