



# FACT SHEET

## R307-351 Graphic Arts

### Overview

The Utah Division of Air Quality, R307-351, was adopted as part of a package of rules designed to help minimize pollution along the Wasatch Front. The Rule applies to graphic arts printing operations in Box Elder, Cache, Davis, Salt Lake, Utah and Weber counties. To determine how it impacts your facility, consider source-wide emissions from all printing operations, including related cleaning activities, prior to any controls being implemented.

### Standards

#### *Flexible Packaging Printing Operations*

**Applicability:** On a per press basis, operations with the potential to emit 25 tons or more of per year of Volatile Organic Compounds (VOC) from inks, coatings and adhesives combined.

#### **Requirements:**

An 80% overall emission control efficiency:

- Emission control system operated and maintained in accordance with the manufacturer recommendations.

Records demonstrating:

- The emissions control system meets rule requirements.
- The equipment is being operated and maintained in accordance with the manufacturer recommendations.

Alternatives to the overall control efficiency:

- Use of low VOC content materials.

A combination of materials and controls as follows:

- 0.8 kg VOC/kg solids applied; or
- 0.16 kg VOC/kg materials applied.
- Averaging the VOC content of materials used on a single press, i.e., within a line.
- Averaging is not allowed for cross-line, i.e., across multiple lines.

Utah Division of Air Quality

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#### **Contact**

(801) 536-4000

General Air Quality information, regulations, and contact information: <http://www.airquality.utah.gov>

This fact sheet provides general information concerning the Graphic Arts rule. See <http://www.rules.utah.gov/publicat/cod/e/r307/r307-351.htm> for the entire rule.

#### DEQ Social Media

##### **Blog**

[dequtah.blogspot.com](http://dequtah.blogspot.com)

##### **Facebook**

[facebook.com/udeq](https://www.facebook.com/udeq)

##### **Twitter**

[twitter.com/UtahDEQ](https://twitter.com/UtahDEQ)

### ***Rotogravure, Flexographic, and Specialty Printing Operations***

**Applicability:** On a per press basis, operations with the potential to emit 25 tons or more per year of VOC from inks, including dilution and cleaning materials.

#### **Requirements:**

- The ink, by volume, contains 25% or less VOC and 75% or more water; or
- The ink, by volume and less water, contains 60% more nonvolatile material; or
- Either a carbon adsorption system or an incineration system is installed and operated; and
- Records demonstrate the above, that requirements for cleaning materials meets the rule, and that any control system is operated and maintained in accordance with the manufacturer recommendations.

### ***Offset Lithographic Printing and Letterpress Printing Operations***

**Applicability:** Operations that emit at least 2.7 tons per year of VOC.

#### **Requirements:**

For heatset web offset lithographic and heatset letterpress inks and dryers:

- 90% efficiency for the control device on heatset dryers.
- As an alternative:
- Reduce control device outlet concentration to 20 ppmv as hexane on a dry basis for situations where the inlet VOC concentration is low or where there is no identifiable measurable inlet.

For heatset web offset lithographic printing fountain solutions:

- 1.6% alcohol or less (by weight) in the fountain; or
- 3% alcohol or less if the solution is refrigerated below 60 degrees; or
- No alcohol and 5% alcohol substitute or less.

For sheet-fed offset lithographic printing fountain solutions:

- 5% alcohol or less in the fountain;
- 8.5% alcohol or less if the solution is refrigerated below 60 degrees; or
- No alcohol and 5% alcohol substitute or less.

For press cleaning materials:

- Less 70% percent VOC; or
- A VOC composite vapor pressure of less than ten mm Hg at 68 degrees Fahrenheit.

#### **Work Practices:**

To further reduce VOC emissions, implement work practices which include tight fitting covers for open tanks and closed containers for cleaning materials, used shop towels, and solvent wiping cloths.

#### **Record Keeping:**

You are required to maintain records of the annual usage of all materials that may be a source of VOC emissions; demonstrating the equipment and any control systems are being operated and maintained in accordance with the manufacturer recommendations and the provisions of R307-351.

#### **Exemptions:**

See the Rule at: <http://www.rules.utah.gov/publicat/code/r307/r307-351.htm>

