

### Ask the Technical Experts!

*One of the benefits of membership is the technical expertise provided by Printing Industries of America. Our technical experts from the Center for Technology and Research discuss common production problems and issues. The Center for Technology and Research helps members with environmental, health, and safety concerns; consulting and on-site technical assistance; Technical Association of the Graphic Arts; technology training; and simulators.*

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Q: The regulations regarding storing and disposing of hazardous waste are very confusing. What can I do to make hazardous management less of a headache?

A: Hazardous waste is one of the most complex regulations to understand, as well as the scariest. There are a few organizational steps that can be used to meet your compliance goals. First make sure you have an EPA ID number; this gives you permission to generate hazardous waste. Second, create waste profiles for each stream of waste generated in your facility. Third, keep all waste manifests from your hauler in a central location. There should be three copies for each shipment: a generator manifest, a return copy manifest from the hauler, and a land disposal restrictions form, otherwise known as a land ban form. Finally, make sure that your accumulation areas are up to snuff. Drums must be properly labeled, stored to prevent damage and leakage, and closed unless being filled or drained. If you maintain these steps, hazardous waste should no longer be a frustrating task.

Q. A customer is insisting we use a scan of a poor quality bar code for their job. We have told the customer that the scan of the bar code would not be of sufficient quality to ensure readability. Do you have any information on quality for printing barcodes?

Bar codes should be created with software that generates vector files. A vector file is a mathematical formula, which is interpreted by the RIP and creates a high-quality image at the RIP's resolution. Scanning an existing bar to a bitmap file is not going to provide the same quality as a vector generated bar code. If a bar code is scanned, it should be scanned as if it were line art, at least 1200 dpi and saved as a bitmap. Saving the file as a grayscale will result in an image with pixilated soft (not sharp) edges on the bar code bars.

Q. How real is the notion of "lights out" production?

A. It is fantasy to think that print manufactories will soon be operating plants in the dark with few workers. But it is true that workflows and equipment are becoming more automated. With

enough time, technology, expertise, and perseverance, it is possible to develop workflows in which files are received through websites and are evaluated, queued up, and printed on digital presses with relatively little human involvement. While there are still plenty of jobs that cannot be automated, progressive companies are working to automate the ones that can be. Our Automation Ready! virtual conference on May 10 will provide insight into the steps needed to increase your print automation. More information at [www.printing.org/automationready](http://www.printing.org/automationready).

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**Printing Industries Resources:**

Offering unbiased and confidential results, Printing Industries of America provides a range of testing and laboratory services to help solve printing-related problems. For more information, please contact Jim Workman at 800-910-4283, ext. 710 (direct 412-259-1710), visit [www.printing.org/labservices](http://www.printing.org/labservices) or email [labservices@printing.org](mailto:labservices@printing.org) or [jworkman@printing.org](mailto:jworkman@printing.org).

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