



AV: Greener than you might think

Forum Article

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The world moves very fast and that is certainly evidenced by the new environmental standards being implemented into building projects. Being environmentally aware is nothing original, what *is* new is the amount of spaces being built or remodeled using the latest in "green" standards. The article that follows below answers some of the frequently asked questions we are getting from customers, and gives a snapshot into some of the green standards affecting the AV World.

Q: What are the latest in "Green" Standards for the AV World?

1. Energy Star Ratings

In the Audio/Video world, it seems easy: use all Energy Star rated equipment. The problem is that no Energy Star products are available to us. Energy Star was adopted early on by the appliance manufacturers, but it only recently that it began catching on with electronics manufacturers.

One of the reasons for this is that there is nothing more inefficient than a Cathode Ray Tube television, so there was no way a yellow star was going on any of those. Another reason is that Energy Star did not come up with a reasonable certification program for electronics. A 36" TV uses more energy than a 20", but under the government standards both would be rated equally. The same goes for amplifiers, a 15-watt paging amp should not be judged along side of a 6000 watt PA amp.

That being said, we now have some in-roads into the Energy Star program through Plasma, LCDs, and digital amplifiers, but more notably we have another standard, RoHs.

2. RoHS Compliance

Started in the UK, RoHs is a standard that restricts how things are made and limits the amount of hazardous materials that can be used in electronic products. In America, we benefit from this because it is not feasible for an electronics company to manufacture one product for America and another for Europe. The United States has not officially adopted this standard but they are not trying to compete with it either. California is trying to adopt separate standards but that will likely go nowhere.

a. What is RoHS?

The RoHS acronym's formal definition is: "The restriction of the use of certain hazardous substances in electrical and electronic equipment". Obviously they shaved off some letters, but the message is fairly clear.

b. The top 4 hazardous substances RoHS restricts:

- [Lead](#) : Lead has been used for years in solder and other grounding posts. RoHs eliminates almost all lead in electronics manufacturing.
- [Mercury](#): This was typically used to measure the operating temperature in electronics but has been largely phased out by new digital technology.
- [Cadmium](#): This one is a little more complicated because it is the primary ingredient in manufacturing batteries/capacitors. It is also a primary element in solder. This was one of the most difficult for electronics manufacturers to eliminate because Ni-Cad batteries and cadmium based solder are the gold standard in electronics manufacturing.
- [Hexavalent chromium](#) : This is a substance that is used to clean circuit boards. This is also the chemical that made Erin Brokovich famous. It has been largely abandoned but the newer process is more expensive.

Q: Why is it beneficial to buy AV equipment that is RoHS compliant or has an Energy Star rating?

1. **Manufacturing that is up to green standards produces less waste.**
The manufacturing process has been cleaned up to be compliant to standards, so we aren't seeing as much industrial waste from AV products.
2. **Getting LEED Certification from the Green Building Council on a new building will be easier if you have RoHS compliant equipment.**
If you are doing a new build or remodel and you want The United States Green Building Council's LEED certification, the RoHS compliant equipment is going to contribute to a successful rating.
3. **The bottom line is that in the end, it's not only less expensive to recycle the equipment, but is just better for the environment.**
When the gear finally lives out its' life and ends up in a landfill, less harmful chemicals means less expensive recycling and that has both financial and personal benefits to us all.

Q: What about energy efficiency? What can I do to be more energy efficient?

The short answer is there are many products available to us today that are energy efficient. An LCD screen is slightly more energy efficient per square inch than a plasma. A digital amplifier is far more efficient than a conventional amp. The list goes on and on.

What can you do to be energy efficient?

Invest in a sequencing timer controlled power distribution system. These add to the overall system cost but they will save you thousands in energy bills and unnecessary equipment replacement. I have done hundreds of site surveys and the one common denominator is that almost every rack I visit is left on constantly.

Q: What is Dascom doing to keep up on standards?

1. **We know all of the RoHS products available and currently can do a 95.9% RoHS compliant system without making any sacrifices in system quality or functionality.**
At Dascom, we continue to look at environment-friendly ways to create a more efficient and effective AV system for your application. We have some excellent options right now and newer things are on the way.

In conclusion, we will continue to update you on any changes, but for now we encourage you to call your Dascom Representative or visit the following Websites:

www.usgbc.com

www.rohs.gov.uk