

## OCTOBER 2008 COLORADO CHAPTER MEETING SUMMARY

The October 2008 Colorado Chapter Meeting was held at the City and County of Denver City Hall. A big thanks to Keith Peetz with the City and County of Denver Building Department for hosting a great meeting and a big thanks to Gil Rossmiller with the Town of Parker for helping with all of the preparations. We had over 50 people attend the one day meeting on Friday October 24. The weather was great and the presentations were better.

The first presentation was by Mike Vail, with Water Legacy, a company which produces greywater recycling systems. He explained various greywater systems that are being produced. One in six people (approximately 1 billion) on the planet Earth have inadequate water and by the year 2025 it is estimated that the State of Colorado will be 635,000 acre feet of water short for our required daily use. One third of the water used in a normal residence is for toilet flushing. It is estimated that if houses used greywater for toilet flushing it would save 150 to 200 billion gallons a year in this country alone.

Mike then spent time explaining the 5 main greywater recycling systems on the market at this time. At this time the State of Colorado does not have set minimum levels of how clean greywater needs to be but it is recommended that it should be “recreational residential quality.” Mike explained that the systems need backflow prevention and typically needs annual maintenance.

Mike finally talked about the various states starting to recognize that water is a finite resource and that their Plumbing Codes need to address this by allowing using greywater systems for these purposes. The State of Colorado Water Law has a basic tenet of only using water once and then having it pass on to the next in line. The Colorado State Water Engineer along with Denver Water Engineer has made the opinion that it is okay to use greywater to flush toilets but a person should check with their local municipality for their official stance. If you would like to contact Mike – his e-mail is [mvail@waterlegacy.com](mailto:mvail@waterlegacy.com)

The next presentation was by Stephen Kane and Jason Sharp, Nameste Solar, a PV installation company. Stephen explained that Colorado is the 6<sup>th</sup> sunniest state in the nation (300 + days a year). This allows Colorado to be a great place for PhotoVoltaic Systems to be used on buildings to offset buying electricity from the “grid.”

He explained that there are two primary solar systems – photovoltaic (converts solar directly to electricity), and solar thermal (fluids). The most popular types of systems are currently PV systems.

Structural capabilities are the biggest challenge when designing the installations of these panel systems on roofs. Wind, mounting, and weight have to be taken into account on existing roof systems.

If you install a large enough PV system on your house you could possibly sell back electricity that you do not use. This is done at the end of calendar years but it is sold back to Xcel at wholesale rates since they treat you as a producer.

Jason Sharp explained how PV systems are designed and talked at length about electrical code issues. He explained how panels, grounding, and conductors should be sized to meet electrical code. Most jurisdictions require a set of load calculations when tying into smaller electrical panels. If you would like to contact Stephen Kane his e-mail is [skane@namastesolar.com](mailto:skane@namastesolar.com)

The next presentation was by Mike Stewart with the State of Colorado OPS. He explained the requirements for sump pits and pumps within elevators as required by the ASME Elevator Code. This is a requirement for any elevator that is provided with firefighter's service. The misconception is that this is required due to potential ground water but in reality it is to take care of any type of water that may enter the pit – fire sprinklers or even from fire fighting operations.

OPS's interpretation of the code is that sump pumps are clearly required to keep elevators for fire fighters. If anyone has a specific situation that they need to have addressed you can contact either Michael Stewart at [michael.stewart@state.co.us](mailto:michael.stewart@state.co.us) or Dave Bruner at [dave.bruner@state.co.us](mailto:dave.bruner@state.co.us) and they will help you. There will also be updates and explanations up on the State of Colorado website.

Joseph Montoya [joseph.montoya@state.co.us](mailto:joseph.montoya@state.co.us) with the State of Colorado then gave us an update on the school inspection process and how we can get a MOU worked up and sent back to the State in order to have our jurisdictions certified to do plan reviews and inspections on schools.

Colorado Chapter President Steve Byer then oversaw the Chapter Business meeting. These notes will be available in after they are approved at the next Business meeting in December in Colorado Springs.

Finally Keith Peetz led the group on a fantastic tour of the LEED Gold certified Federal EPA Building. From sails in the multi story atrium to distribute light to the interior offices to the hollow floor systems used for distribution of conditioned air, this building was full of many unique features. Well worth the time we spent. Please visit this web site for more information <http://www.epa.gov/oaintrnt/facilities/denver-hq.htm>