



DDC-pneumatic controls systems offer the fast acting ability to control actuators on dampers and valves – which is characteristic of pneumatic systems – while maintaining the ability to implement complex sequencing, controls strategies, and trending characteristic of a DDC system.

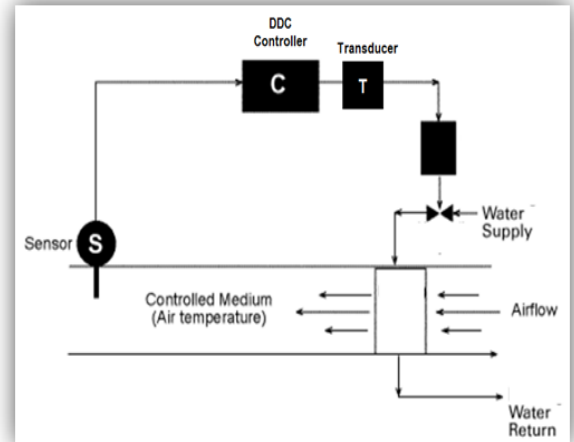
- A DDC-pneumatic control system uses the DDC system to control the sequencing of the equipment via electronic commands
- These electronic signals are sent out to pneumatic controllers via electronic to pneumatic transducers
- These transducers take the control signal and convert it to an air pressure, which controls the corresponding pneumatic actuator



When does it Pay to Retro-Cx Electric to Pneumatic Transducers?

The discovery of control valve leak-by is an all too common occurrence during the Retro-cx process. Conducting following up testing on the respective coil, while simultaneously data logging the temperature of the piping before and after the valve can yield conclusive results that a cooling or heating effect is still occurring when the valve has been commanded off.

This condition is labeled as almost always “Control Valve Leak-by”; however, there is one possible alternative conclusion relevant to DDC-pneumatic controls systems that is often overlooked – **the calibration of the electric to pneumatic transducers.**



When “leak by” is detected on a DDC-pneumatic central station air-handling unit control valve, ask:

- Has the specification of the transducers – with respect to the valve actuator – been checked
- Has the calibration of the transducer been verified

Although valve replacement typically can be done in-house, replacement of these valves is often capital intensive and the valve may not be the true problem.

Calibrating or replacing a transducer is a miniscule effort in terms of both time and capital requirements.

A 2.5-year payback for the leak-by energy conservation measure **can be reduced** to a 1-month payback for the transducer replacement or calibration.

This is when it pays to retro-commission the electric to pneumatic transducers.

Pneumatic Transducer Retro-cx Sample Procedural Test

Test 1:	Verify source air is 20 psi (or as required by transducer)	
System Ranges (verified)		
	Minimum	Maximum
Transducer Air Output	3 psi	15 psi
Pneumatic Actuator	8 psi	13 psi
Voltage Signal	0 volts	10 volts
Milliamp Signal	0 mA	20 mA
Sample Retro-Commissioning Test		
	Output Air from Transducer	Valve Position
Test 2:	0 psi	0 % open **
Test 3:	7 psi	0 % open**
Test 4:	10 psi	50 % open**
Test 5:	13 psi	100 % open**
**Where possible, use the valve stem stroke for visual confirmation.		

Featured Projects



Rolls Royce Supports a Cleaner Bayonne

In December 2012, Rolls-Royce contracted with ENERActive Solutions – *Power Plant Solutions Division* – to improve performance on their *SCR NOx reduction systems* at the Bayonne Energy Center in Bayonne, NJ. The SCR systems were installed on *Rolls-Royce Trent 60 64MW* gas turbines.

The changes implemented by ENERActive significantly *reduced emissions* at the plant, bringing the plant into *NJDEP compliance*.



Cogeneration utilizes waste heat while burning natural gas to generate electricity. The waste heat is used to create steam typically for large heating loads or process heating. This can be *beneficial* when natural gas cost is low and electricity rates are high.

FDA Central Plant

- Two 7.5 megawatt (MW) dual turbine generators
- 4.5 MW natural gas turbine generator
- Two 2.25 MW diesel standby generators
- 5 MW steam turbine generator

FDA Project Generates Heat

ENERActive Solutions was selected in early January 2013 as *Start-Up Manager* for the Food and Drug Administration's new **Central Utility Plant** in Silver Spring, MD. The plant is a cogeneration facility, delivering electricity, steam, heating hot water, and chilled water to the FDA research campus, *totaling 1.2 million square feet*.

An important component to the efficient operation of the Central Utility Plant is the *comprehensive equipment start-up plan*. ENERActive is responsible for the coordination of all major equipment and sub-system startups – with the focus on integration of each piece into the overall plant startup. This will be executed under the guidance of ENERActive startup manager, Harrison Ruffin Tyler.



This ongoing project is scheduled to be completed in September 2013; *optimizing the delivery of utilities* to the entire campus and *strengthening energy security* by reducing reliance on the traditional electrical grid.

In total, the plant will be capable of producing up to:

250,000 MW-hours
of electricity
each year

Enough energy to power:

**More than
23,000
Homes**



Spotlight On

Eneractive is pleased to Welcome
MARK A. DORNOFF
To the Team!

Mr. Dornoff joined the *Power Plant Solutions* (PPS) Team this past month as Head of Business Development. As a vibrant and fast growing division of Eneractive, Mark's 15 years of experience in Utility Generation – focused on heat transfer and environmental controls with SCR's Precipitators, Fabric Filters and regenerative air heaters – will support PPS in continuing to soar to new heights!



Mr. Dornoff will focus on developing business for SCR catalyst management & catalyst evaluation, project management in gas simple and combined cycle plants, as well as traditional coal fired power plants. His expertise will prove invaluable as a customer advocate for evaluating vendor proposals, offering suggestions and satisfying environmental regulations. We look forward to Mark's versatile skill set, enthusiastic ways, and immediate impact he will have here at ENERActive!

Energy Association Recognizes Regional Leaders in Energy

The Association of Energy Engineers, a nonprofit Association of over 16,000 members, presented distinguished energy awards at the 35th World Energy Engineering Congress in Atlanta, GA. The awards went to individuals and organizations making contributions to the energy industry in designated regions. **ENERActive is proud and honored to spotlight two of the firms our team assisted:**

Washington & Lee University's Energy Master Plan
Munich RE America's Energy Reduction Plan

Corporate Energy Management

Washington & Lee University

Award presented for outstanding accomplishments in developing, organizing, managing and implementing their corporate energy management program, and for superior service to the Association. [*Check out the full project details here!*](#)

Notable Project Achievements:

64 unique ECM's identified
Over \$4 M in annual energy savings

Energy Project of the Year

Munich RE America

This award recognizes an innovative energy management project that can be substantiated with actual installation costs and operating savings. [*Check out the full project details here!*](#)

Notable Project Achievements:

Identified over 6.2 M kWh's in annual savings
Reducing annual kWh usage by over 40%

One More Tri, One More Time

Stemming from a shared commitment to community service and a collective passion for health and wellness, a vision of creating the first ever triathlon to benefit The Special Olympics became a reality on September 23, 2012. Our most remarkable philanthropic effort to date, "One More Tri" was truly a unique event, marking the first time that many Special Olympics athletes had the opportunity to participate in a triathlon, as well as the opportunity to partake in an open water swim.

This year, we are proud to once again sponsor and host:

ONE MORE TRI

Triathlon/Duathlon/Aquavelo



To Benefit

Special Olympics New Jersey



Last year, One More Tri...

Enrolled over

270 athletes

65 volunteers

&

Raised over

\$60,000

**Join us this year for another
successful event!**

When: Sunday, September 15, 2013

Where: Asbury Park, NJ

*If you would like to participate
in this year's event as a:*

**Racer, Sponsor, Volunteer
or Donor**

Send an email to:

charity@eneractivesolutions.com

or

**[check out the SONJ site
for more info!](#)**



What's Next...

Event Details

Urban Green Presentation

When: Thursday, May 9th

Time: 6:00 pm – 7:30 pm

Where: The Mohawk Group
71 West 23rd Street
New York, NY 10010

GBCI

Approved for **1.0 CE hour**

AIA/CES

Approved for **1.0 LU hour**

[RSVP Here](#)

Webinar Series

*Energy Savings Through
Facility Retro-Cx*

Coming Summer 2013

*Be on the lookout for
ENERActive's launch of our
inaugural webinar series this
summer!*

Urban Green Presentation Local Law 87

Most recently, we had the pleasure to announce Mr. Grosso as the latest addition to Urban Green Council's NYC Greater, Greener, Buildings Plan outreach and awareness initiative. As a member of this Local Law 87 Speakers Bureau, Mr. Grosso has delivered presentations on NYC's GGBP, highlighting Urban Green's step-by-step Local Law 87 Compliance Guide.

These complimentary presentations by Saverio and other members of the bureau detail instructions on how to get your building on board and meet the GGBP's regulatory measures, as well as provide guidance on how to direct your staff and consultants in complying with LL87.

**Don't miss Saverio's LL87 presentation on
Thursday, May 9th, 2013**

*It's Not too Late to Learn
How to Comply*

Have more questions about Local Law 87?

Stay tuned for our next *Spotlight Series* where we address popular concerns and questions – highlighting the need to know info for your building's compliance.

*Stay in the know with ENERActive's
Spotlight Series!*

Covering a range of topics, from Building Cx Presentations to Energy Expos, each unique Spotlight is custom designed with news that is relevant - keeping subscribers ahead on trends, upcoming seminars, industry leaders, and more.

[Sign up free today for our Spotlight Series](#)