

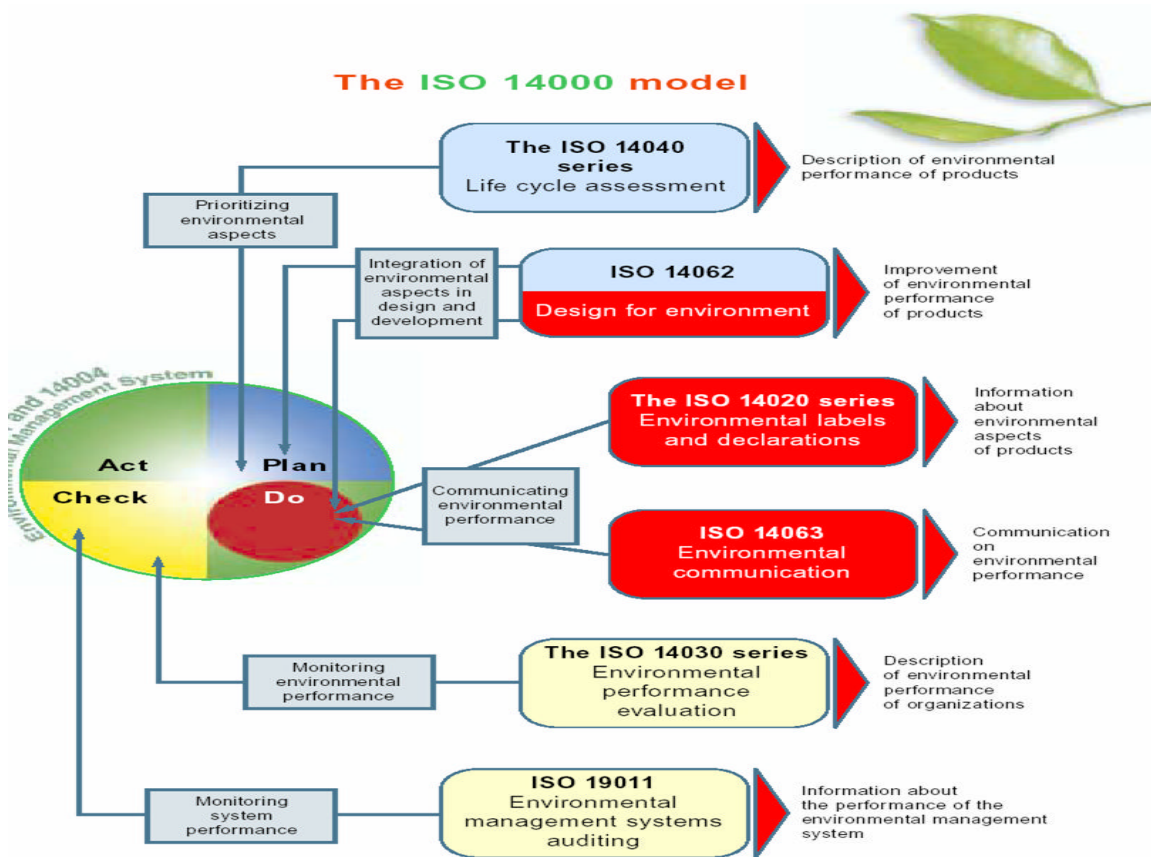
**VOLUNTARY INDUSTRY AIR EMISSION REDUCTION PROPOSAL
 CLEAN AIR PARTNERS BOARD MEETING DISCUSSION
 PREPARED BY JEFF STEERS, VDEQ
 JULY 14, 2005**

GOAL

Improve air quality in the region by implementing a plan that results in emission reductions through voluntary actions/efforts by industry and business in northern Virginia, Maryland and DC.

EXISTING PROGRAMS- HOW CAN WE DOVETAIL WITH OUR NEEDS

Nationally and locally, there are many programs and efforts underway to seek voluntary emission reductions from stationary sources. Motivations vary as to what drives these programs and success stories. Many facilities have adopted Environmental Management Systems (EMS) or EMS like programs to reduce their impacts on the environment in all media. An EMS program is basically a quality improvement circle of plan, do, check and act as illustrated below:



Costs reductions and public recognition appear to be the prime motivator, along with the philosophy that it's the "right thing to do". Some operations, such as the Federal government are directed through Executive Order to implement EMS programs. The breath and depth of these programs, some of which include 3rd party audits, vary. Many facilities, both in Virginia and nationally have adopted some best practices to use in making reductions in ozone precursors. These include the following:

- ✚ No testing of emergency diesel generators on predicted orange and red ozone days. (May be in permits already, but small generators may be below permitting threshold).
- ✚ Defer application of pesticides with VOC carriers. (If companies say they can't, remind them that they defer, or should defer, for rain so they can do it for O3 days.)
- ✚ Defer motorized mowing, leaf blowing, etc. with gasoline powered equipment. (“)
- ✚ Defer watering lawns, plantings (water treatment and distribution take considerable power, which entails fossil fuel combustion)
- ✚ Defer painting and related operations (paint removal, paint thinning/mixing)—perhaps not feasible for facility doing painting in manufacturing (e.g., metal furniture) but may be feasible for building/facilities maintenance.
- ✚ Program to use O3 forecasts to minimize vehicle refueling operations or filling of gas cans during bad O3 days (keep vehicles gassed up—or propaned up for forklifts--so don't need to refill on O3 day—of course try to refuel during evening hours).
- ✚ Program to reduce power consumption—e.g., reducing lighting to reduce both lighting power demand and air conditioning load. (Actually, facilities should be energy efficient regardless of ozone status and most can reap substantial rewards without sacrificing productivity or comfort through lighting and HVAC upgrades, improved building controls, Energy Star and similarly rated equipment, improved building shells and architectural features, trees and other planting including green roofs to reduce cooling loads, etc.).
- ✚ If possible defer until evening deliveries of solvents and fuels. Also defer transfers of solvents on site, including pick up for recycling or disposal.
- ✚ Defer sealcoating and other asphalt work.
- ✚ Enforce no idling policies for own vehicles and deliveries.
- ✚ Apply above to contractors and service providers—landscaping companies, painting, asphalt maintenance, roofing, solvent recovery services, fuel suppliers, etc.

In addition to EMS efforts, local jurisdictions have tried to proactively work with their business stakeholders to implement various forms of voluntary efforts during the ozone season. While not necessarily geared towards episodic events, rather implemented during the entire season, these

efforts appear to have generated some level of emission reductions. Two examples are in Louisville/Jefferson County Kentucky and the Winchester/Frederick County region of Virginia.

In Louisville, the Louisville Metro Air Pollution Control District solicited voluntary reductions from its industry and required reporting as to what if any actions were undertaken during the summer of 2003. Many of the previously described strategies were used by area businesses to achieve these reported results. The following table summarizes the findings:

SUMMARY: Voluntary Emission Reduction Reports

The goal of the "Voluntary Emission Reduction Plan" prepared by Greater Louisville, Inc. (GLI) indicated that local business and industry could voluntarily reduce ozone precursor emissions by approximately 5,675.3 lbs per summer day (pp/sd). On June 18, 2003, the Louisville Metro Air Pollution Control Board adopted a resolution requiring stationary sources to submit a Voluntary Emission Reduction Report (VERR) to the Louisville Metro Air Pollution Control District (LMAPCD) documenting and quantifying their voluntary emissions reductions. This data is summarized below:

Total number of Title V-permitted facilities subject to the voluntary emission reduction reporting (VERR) requirement:	43
Total number of FEDOOP-permitted facilities subject to the voluntary emission reduction reporting (VERR) requirement:	110
Total number of Minor Source-permitted facilities subject to the voluntary emission reduction reporting (VERR) requirement:	1
Total number of permitted facilities subject to the voluntary emission reduction reporting (VERR) requirement:	154
Total number of permitted facilities who submitted voluntary emission reduction reports (VERR):	143 92.9%
Total number of permitted facilities who did not submit voluntary emission reduction reports (VERR):	11 7.1%
Total number of voluntary emission reduction reports (VERR) that should have been submitted:	154
Total number of permitted facilities who implemented emission reduction strategies during the 2003 Ozone Season:	99
Total number of permitted facilities who did not implement emission reduction strategies during the 2003 Ozone Season:	45
Accomplished daily reduction of VOC emissions achieved by emission reduction strategies (pounds per summer day):	3,710.0
Accomplished daily reduction of NOx emissions achieved by emission reduction strategies (pounds per summer day):	7,918.5
Total accomplished daily estimated reduction of ozone precursors (pounds per summer day):	11,628.5
Accomplished total reduction of VOC emissions achieved by emission reduction strategies (tons during the Ozone Season):	148.8
Accomplished total reduction of NOx emissions achieved by emission reduction strategies (tons during the Ozone Season):	444.7
Total accomplished total estimated reduction of ozone precursors (tons during the Ozone Season):	593.5
Accomplished daily reduction of VOC emissions achieved due to decreased production (pounds per summer day):	860.1
Accomplished daily reduction of NOx emissions achieved due to decreased production (pounds per summer day):	61.8
Total accomplished daily estimated reduction of ozone precursors due to decreased production (pounds per summer day):	921.8
(Note: Not all facilities provided information on emissions reduction attributable to decreased production due to the economy.)	
Accomplished total reduction of VOC emissions achieved due to decreased production (tons during the Ozone Season):	34.7
Accomplished total reduction of NOx emissions achieved due to decreased production (tons during the Ozone Season):	2.1
Total accomplished total estimated reduction of ozone precursors due to decreased production (tons during the Ozone Season):	36.8
(Note: Not all facilities provided information on emissions reduction attributable to decreased production due to the economy.)	

Largest Total Voluntary Emission Reductions	
Company	VOC (tons)
Ford - Louisville Assembly Plant	30.2
Carbide Industries	27.8
American Synthetic Rubber Company	18.9
Reynolds Metals Company - Foil Plant	14.6
Du Pont Dow Elastomers	9.1

Largest Total Voluntary Emission Reductions	
Company	NOx (tons)
LG&E - Cane Run Station	206.0
Kosmos Cement	148.9
LG&E - Mill Creek Station	26.0
American Synthetic Rubber Company	24.4
United Parcel Service	24.0

In the Winchester/Frederick County region, local planners contemplated voluntary industrial reductions as part of their Early Action Plan to achieve attainment with ozone in the northern Shenandoah Valley. Their target for reductions is 0.04 tpd for NOx and 0.34 tpd for VOCs. Local authorities are hoping to sustain these efforts by 2007 by having area businesses participate in similar pollution prevention and EMS activities.

OPTIONS FOR CAP VOLUNTARY PROGRAM

There are potentially 3 paths forward that we may take towards setting up a voluntary emission reduction program with area business and industry. These include

~ Review general EMS type activities that involve air reductions (float these ideas out there and get partners to help us promote). Typically large full scale EMS programs both in Virginia and nationally involve energy projects and other long term capital improvement projects. However, as described above, smaller short term projects are possible. CAP could develop a matrix of “best practices” for the ozone season and specifically during episodic events for helping industry reduce their emissions. CAP would team with its business partners to promote and advertise the program.

~ Review and discuss broad ranging voluntary reduction effort example from Louisville/Jefferson Co KY (implement something akin to this program- would take a bit of work and time).

~ Discuss & evaluate targeted sector based voluntary reduction program (review printing industry in NOVA as a pilot- working with the Printing Industries of America trade organization- they are interested in working with us and see it as good for the environment and positive PR). DEQ has begun identifying some best practices in the printing industry that would be used by participants for achieving reductions. Each CAP jurisdiction could identify its target sector. Printers appear a good match for Virginia. DC and Maryland could identify that sector or another that may work well for this program. Success of this option will necessitate early forecasting in order to give participants enough lead time.

A combination of the above may also be used. For example, we may focus a pilot targeted sector based program while developing the best practices matrix for all of our area businesses. Regardless of which options are chosen, CAP will need to structure some form of reporting so as to determine the number of participants and estimates of realized reductions.

ROLE OF CAP IN A VOLUNTARY EMISSION REDUCTION PROGRAM

Clean Air Partners role in the efforts described above may include the following:

- Developing promotional materials and outreach information
- Identifying trade organizations and other groups to partner for success
- Forecasting
- Develop and rewards and recognition program for successful participants.