

# STACK EMISSIONS AND WATER DISCHARGE MANAGEMENT

REDUCE AND MANAGE YOUR RISK – OPTIMIZE YOUR RESOURCES



## More demands, fewer resources

Both utilities and Electric Wholesale Generators (EWG) must continue to meet increasing environmental requirements with diminishing resources and fewer specialized personnel.

The demand for expert capabilities in environmental control and impact mitigation technologies has grown, along with the need for improved environmental risk assessment, training, and implementation. More than ever, utility decision makers need fact-based solutions for the reduction of emissions.

## Effective solutions

Kinectrics offers a full range of emissions and discharge modeling and management services. Our expertise provides you with reliable, accurate information enabling you to operate more efficiently and effectively within regulatory requirements. Kinectrics designs practical solutions to match your specific operating environment and, we work directly with your personnel to ensure you receive the maximum benefits.

## Comprehensive services

### Stack Emissions

Kinectrics can assemble analysis and modeling studies designed to match your specific operating conditions. Kinectrics offers extensive practical experience and we continue to be actively involved in major field trials of the latest emission control technologies. Our broad-based capabilities include:

- Atmospheric transport modeling – software development and episodic studies
- Risk assessment – health and impacts of existing and new facilities
- Stack sampling for mercury (\*Ontario Hydro Method) and PM10/PM2.5
- Mercury, heavy metals, analytical and control for existing FGD systems and new systems
- Application of SO<sub>x</sub> and NO<sub>x</sub> controls to coal blends – SCR application to PRB coals, SNCR techniques, scrubber technologies and retrofits. Kinectrics has developed software to forecast NO<sub>x</sub> transport and ozone concentrations and can apply these methods to different species and mechanisms.
- Evaluation of emission systems malfunctions and performance degradation; “root-cause” analysis and recommendation of remedial action.

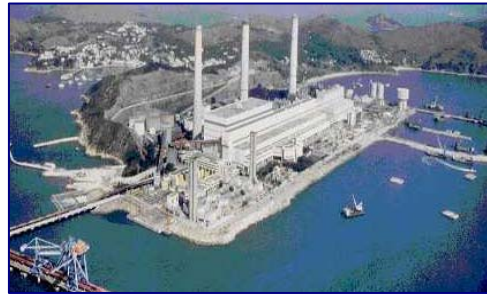
### \*Ontario Hydro Method

The “Ontario Hydro” method (Cat. D PM-PRE3) is the accepted analytical approach to determining the proportions of elemental and chemically combined mercury in stack gas. This method is a vital part of advanced mercury removal technologies.

***Water discharge***

Both raw water treatment and wastewater discharge are major potential sources of environmental impact.

Our approach is to begin by minimizing discharge, before commencing assessment and treatment. This service can include diagnosis and correction of water treatment process problems, detection of low level leakage with on-site gas chromatography, testing and correction of ion exchange resins.



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