Digest of Selected EPA Regulations:
Perspectives on Technology Opportunities and Ideas
October 14, 2009 – Working Draft

Region 5 staff derived this digest from the EPA Spring 2009 Regulatory Agenda (145 pages plus appendices). The full Agenda is available at http://www.epa.gov/lawsregs/documents/regagendabook-spring09.pdf.

Background Note: The following is a selection of EPA rules in various stages of development that may provide new market opportunities for technology developers. Short notes on the regulations and their possible relevance for venture capitalists and technology developers were prepared with assistance from USEPA contacts listed in the regulatory agenda. This is not a complete list; it may be expanded in the future. One can search for details of individual rules by their RIN number (the number appearing at the beginning of each listing) at http://www.reginfo.gov/public/do/eAgendaSimpleSearch.

Air

2060-AL98: Alternative Work Practice for Leak Repair and Detection, completed action.
This rule allows an alternative approach for monitoring emissions of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) under the Clean Air Act (CAA) through use of image based monitoring technology. Improved, less expensive equipment for the purpose may be needed. To implement this rule, an optical imaging device (IR camera) is needed. The rule was published on Dec. 22, 2008.

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2060-AO81: Renewable Fuels Standard Program, proposed rule stage.
The RFS2 program, once finalized, will require significant volumes of cellulosic and other advanced biofuels derived from substances other than cornstarch. The program may be of interest to investors. More information on the RFS2 program is available in Section II.A of the proposal, located at http://www.epa.gov/otaq/renewablefuels/. . Final action is anticipated in Nov. 2009.

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2060-AO38: Control of Emissions from New Marine Compression-Ignition Engines at or above 30 Liters per Cylinder, proposed rule stage,
This rule involves new aftertreatment technology and low sulfur diesel fuel. The coordinated strategy for Category 3 marine vessels will require technology (potentially, but not necessarily aftertreatment) to reduce NOx emissions from these large engines. As an alternative to fuel switching, the International Marine Organization (IMO) standards allow for "equivalent technology" as an alternative. The technology most often considered here is exhaust gas SOx scrubbers. Several companies are also looking at developing exhaust gas monitoring equipment for ships. There may be an opportunity to develop alternate control technologies. Final Action is anticipated in Dec. 2009. The August 28, 2009 notice of proposed rulemaking is available at http://edocket.access.gpo.gov/2009/pdf/E9-19187.pdf.

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2060-AP36: NESHAPS for Reciprocating Internal Combustion Engines, proposed rule

stage.
The purpose of this rule is to reduce hazardous air pollutants such as formaldehyde. The final rule may have emission limits that necessitate the use of aftertreatment control devices such as oxidation catalyst or catalyzed diesel particulate filters. Opportunities for these types of control technologies may exist. Further information is available at http://www.epa.gov/ttn/atw/rice/ricepg.html. Sources will have 3 years after the date of publication of the final rule to comply with the regulation. The regulation must be finalized by February 10, 2010.

Contact: Melanie King, king.melanie@epa.gov

2060-AO15: Portland Cement Notice of Reconsideration, proposed rules stage. "Speciated mercury testing" is requested of four facilities. The Portland Cement NESHAP reconsideration will be completed sometime next year. All facilities will need to be in compliance sometime in 2013. In the proposed rule, EPA estimates that the cement industry will spend over a billion dollars in capital costs for emissions controls and monitoring equipment for the following pollutants: mercury, total hydrocarbons, hydrochloric acid, and particulate matter. There would be an opportunity for any firm that makes cost effective controls and monitoring equipment for emissions from cement kilns. More information is at http://www.epa.gov/ttn/atw/pcem/pcempg.html. Final action is anticipated in April 2010.

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2060-AK03: Performance Based Measurement System for Fuels, proposed rule stage. This rule provides criteria to self qualify measurement methods for fuels. The intent of the Performance Based Analytical Test Method Approach (PBATMA) proposal is to establish criteria for the qualification of alternative test methods to measure properties of gasoline and diesel fuel. Existing and new measurement technologies may qualify once this PBATMA approach is implemented. EPA anticipates that a proposed rule will be available for comment in 2010. There is a possible need to develop alternate test methods for the implementation phase, beginning 2010 or 2011. Final action is anticipated in December 2010

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Water

2040-AE84: Drinking Water Regulations for Aircraft Public Water Systems, final rule stage. This rule is tailored for aircraft water systems to assure that water on board aircraft is safe for passengers and crew. Unlike traditional water systems, aircraft water systems are mobile and may board water from many different sources, some of which are outside of US jurisdiction. Reliance is placed on best management practices with periodic monitoring. This could allow creation of businesses to provide technology for aircraft related to best management practices, monitoring, and other support. Final action was submitted to the Federal Register on 10/7/09. Publication should occur soon. More information is available at http://www.epa.gov/safewater/airlinewater/index.html.

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2040-AE69: Effluent Limitations Guidelines and Standards for Airport Deicing Operations, proposed rule stage.
This rule involves control of pollutants used in deicing fluids. The rule would require airports, which are the largest users of aircraft deicing fluid to capture a specified percentage of the used fluid, and treat the wastewater. The captured wastewater may also be sent off-site, to either a municipal sewage treatment plant or commercial waste treatment facility. The principal pollutants of concern are propylene glycol and ethylene glycol, which are the active ingredients in most aircraft deicing fluids. The glycol recovered from some airports is recycled and sold for use in manufacturing other chemical products. The waste treatment technologies may be of interest to investors and some airports may be new customers for the recycling industry. More information can be found at http://www.epa.gov/guide/airport/. Final action is anticipated in December 2010.

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2040-AF03: Development of Best Management Practices for Recreational Boats, long-term action.
This rule begins a three-phase process of regulatory development. The regulations may ultimately address concerns related to invasive species and may encourage technology development for cleaning of hulls, etc. Investors may find opportunities to play a part in the development of these technologies, which also will likely be spurred on by current state regulations and recreational vessel hull cleaning programs to control invasives. EPA anticipates proposing the first phase of the regulations for public comment in April 2010, identifying discharges to be covered and management practices. Final Action is anticipated in March of 2011.

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2040-AD87: NPDES Requirements for Peak Wet Weather Discharges from Publicly Owned Treatment Work Treatment Plants Serving Sanitary Sewer Collection Systems Policy, long-term action.
This rule may require new equipment or technologies for wet weather blending or other equipment to deal with peak flows. Some questions to be addressed are: Advanced physical/chemical units – What pathogens are associated with which units? Issues include optimization of wet-weather treatment operations and feasible technologies to detect sewer overflows in timely manner. EPA requested public comment on a proposed policy in 2003. EPA did not finalize the policy. The policy options are still under review.

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Resource Conservation and Recovery Act

2050-AE87 Revisions to the National Oil and Hazardous Substance Contingency Plan, long-term action.
This rule requires that EPA prepare a schedule of dispersants and other chemicals used for spill mitigation. The methods used to test products may change. Opportunities for improved products may exist. The schedule of dispersants and other chemicals will likely be released in mid 2010.

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2050-AE51: Modifications to RCRA rules for Solvent Contaminated Wipes, final rule stage.
This rule could affect the business of providing, cleaning, and disposing of solvent-contaminated wipes. Under this rule, generators cannot send wipes for disposal if the wipes contain solvent. No single technology is specified for removing the solvent, leaving it to the generator to find the best method. Disposal options after solvent removal include laundering, burning - both incineration and for energy, and municipal solid waste landfill disposal. There is an opportunity to develop new technology for solvent removal and wipe materials. More information is at http://www.epa.gov/waste/hazard/wastetypes/wasteid/solvents/wipes.htm. EPA anticipates publication in October 2009 of a notice of data availability on a revised risk analysis, followed by a final rule in early 2011.

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2050-AG39 Amendment to the Universal Waste Rule: Addition of Pharmaceuticals, long-term action.

EPA has proposed to add hazardous pharmaceutical wastes to the federal universal waste program. If finalized, this addition will facilitate the proper management of hazardous pharmaceutical wastes by streamlining the hazardous waste management requirements for the generators of these wastes. The inclusion of hazardous pharmaceuticals may increase demand for management of pharmaceutical wastes, including collection of pharmaceutical wastes via drug take-back programs. More information is at http://www.epa.gov/epawaste/hazard/wastetypes/universal/pharm.htm. The rule is expected to be finalized in 2011.

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2050-AG34 Revisions to the Land Disposal Treatment Standards and Amendments to Recycling Requirements for Spent Petroleum Refining Hydrotreating and Hydrorefining Catalysts, long term action.
This rule or subsequent rules may alter demand for the recycling of spent catalysts used in petroleum refining. There is a regulatory docket containing background information on this activity. No rule is proposed yet. The docket number is EPA-HQ-RCRA-2003-0023. The web site is www.regulations.gov

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Toxic Substances Control Act

2070-AJ48 Lead; Minor Amendments to the Renovation, Repair, and Painting Program, proposed rule stage
This action will make several technical amendments to the Lead Renovation, Repair, and Painting Program. The program as a whole could use economical, user-friendly Lead Test Kits, improved technologies for stabilizing and removing lead-based paint, and greatly improved availability of N100 face masks for protection from lead contaminated paint dust. These technologies may be of interest to technology investors. More information is available at http://www.epa.gov/lead/pubs/renovation.htm. In April 2008, EPA issued a rule requiring the use of lead-safe practices. Beginning in April 2010, contractors must be certified and follow specific work practices to prevent lead contamination. EPA initiated three new lead renovation, repair and painting program regulatory activities in August 2009. See http://www.epa.gov/lawsregs/search/ail.html#aug09 for more information.

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