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DID YOU KNOW?

2007 was a year of continued success and achievement at CRA in its 31st year. Some key highlights:

- CRA's acquisition of the former Cambria Environmental Technology Inc. dramatically increased CRA's presence in western North America, adding offices in California (5), Colorado, and Washington.
- CRA was again recognized as one of Canada's 50 Best Managed Companies.
- CRA Services was awarded the National Safety Excellence Award by the Associated Builders and Contractors.
- CRA Europe was recognized as one of the top 5 consultants in the UK in five categories.
- Several Fortune 100 corporate clients recognized CRA for outstanding safety performance.

CFATS (Chemical Facility Anti-Terrorism Standard) Deadlines.

The new CFATS anti-terrorism regulation, effective November 20, 2007, requires identification and regulation of "high-risk chemical facilities." All chemical facilities housing certain quantities of specified chemicals must complete a preliminary screening assessment. Initial reporting is due by January 21, 2008. The regulation, administered by the Department of Homeland Security, applies not only to chemical producers, but also to many other types of facilities including manufacturing, processing, petroleum, and agricultural facilities. Penalties for noncompliance can be severe.

CRA's Emergency Management and Business Continuity (EM/BC) Group assists with all of the requirements of the regulations, including: Top Screening Submittals, Security Vulnerability Assessments (SVAs), Site Security Plans (SSPs), Annual Audits, and Document Security. The CRA EM/BC Group is certified in the use of the CARVER Methodology to assist in the analysis and examination of the interrelationships among assets, threats, vulnerabilities, and countermeasures that protect facilities and operations. The CARVER Methodology is one of the few that is accepted by the Department of Homeland Security. For more information, or to identify a specialist in your region, contact David Hagerty (734/453-5123 or dhagerty@CRAworld.com).

Comment Period on the Joint EPA/Corps of Engineers Guidance Extended.

On June 5, 2007, the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (Agencies) issued joint agency guidance regarding Clean Water Act (CWA) jurisdiction following the U.S. Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The guidance is intended to ensure that jurisdictional determinations, administrative enforcement actions, and other relevant agency actions being conducted under the CWA are consistent with the *Rapanos* decision and provide effective

protection for public health and the environment.

The Agencies have agreed to extend both the comment period on the guidance documents and the coordination process for 45 days beyond the original expiration date of December 5, 2007, until the first business day after January 19, 2008. All documents related to this guidance are posted online at: http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm. For more information on the guidance and its impact on jurisdictional determinations, contact Dave Marschall (dmarschall@CRAworld.com or 225/292-9007).

More FERC Documents Made Available Through eLibrary.

Until recently, many of the maps and drawings submitted with applications to the Federal Energy Regulatory Commission (FERC) were classified as Non-Internet Public (NIP) and not available for viewing via eLibrary at the FERC web site. Pursuant to Order 702, effective December 14, 2007, no new materials will receive a security level of Non-Internet Public. Documents that would previously have been classified NIP will either be classified Public or Critical Energy Infrastructure Information (CEII). For a short, interim period, some historical materials in eLibrary will continue to have a security level of NIP. The security level of the existing NIP materials will be converted in the future to either Public or CEII. For more information, contact Linda McConnell (lmconnell@CRAworld.com or 225/296-6548).

UST Compliance Reports.

Section 1526 of the Energy Policy Act of 2005 required that each state and territory receiving funds under Subtitle I of the Solid Waste Disposal Act submit to EPA's Administrator by August 8, 2007, a report regarding each noncompliant underground storage tank (UST) located in its jurisdiction that is owned or operated by the federal, state, or local government. Additionally, the Energy Policy Act required that EPA make

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each report received available to the public through an appropriate medium. EPA's posting of the reports on the Agency's web site fulfills that requirement. To see the compliance report for each state and territory, see www.epa.gov/oust/fedlaws/sfreport.htm.

Wastewater Treatment by Membrane Technology. Membrane systems have long been operated in wastewater applications for effluent filtration. However, recent equipment developments, more stringent effluent limits, and market economics have led to membranes becoming more of a mainstream treatment technology. Membranes are being used to achieve very high quality effluent for sensitive receiving waters, for various water reuse applications, as a space-saving technology, and for on-site treatment. Membrane systems are also attractive for retrofitting and expanding existing water and wastewater treatment plants.

The Membrane Technology 2008 conference will be held January 27-30, 2008, in Atlanta, GA. The conference is sponsored by the Water Environment Federation in cooperation with the American Membrane Technology Association and the Georgia Association of Water Professionals. To register, visit: www.wef.org/ConferencesTraining/Conferences/SpecialtyConference.

An introduction to and analysis of the technology was recently highlighted in CRA's Innovative Technology newsletter. For a copy, or to subscribe, contact Jan Kochany at 905/712-0510 (jkochany@croworld.com) or Alan Weston (aweston@croworld.com) at 716/297-6150.

Vapor Intrusion at Brownfield Sites. A new California law requires that parties performing remedial action at brownfield sites scheduled for redevelopment conduct soil-vapor studies to determine the risk of vapor intrusion. The state action may be a forerunner to similar legislation on brownfield redevelopment in other jurisdictions. California's AB 422 amends the state's Superfund Act to require that assessments of brownfield properties now include an analysis of the effects of possible vapor intrusion into either existing or proposed structures at the redeveloped site. For the full text, see http://info.sen.ca.gov/pub/07-08/bill/asm/ab_0401-0450/ab_422_bill_20071013_chaptered.pdf.

Ecological Restoration of Lands. The Ecological Restoration of Lands web site (<http://clu-in.org/products/ecorestitution>) is a resource for project managers and others seeking information and guidance on ecological restoration and revitalization. It includes a glossary of restoration terms; a set of principles for ecological restoration and information; and links to resources on soil health and amendments, native and invasive plant species, and ecosystem-based restoration. The site also features a comprehensive list of federal and local resources for ecological restoration projects, including the Federal Highway Administration's publication, "Roadside Use of Native Plants."

Wind Energy. Wind is the world's fastest growing electric energy source, according a study published in the November 2007 issue of the American Meteorological Society's Journal of Applied Meteorology and Climatology.

However, because wind is intermittent, it is not used to supply baseload electric power today. Reliability can be improved, according to the study, by interconnecting wind farms with a transmission grid. This reduces the power swings caused by wind variability. See the study at www.ametsoc.org/amsnews/connectingwindfarms.pdf.

For information on CRA's Wind Power development services, contact Tom Levy (tlevy@CRAworld.com or 613/727-0510).

Images Available. Looking for images related to the environment? Several government-sponsored web sites maintain images that are available to the public. The USGS has released a new Web site for its rapidly growing Digital Image Library at <http://images.nbii.gov>, with approximately 30,000 images in the queue. The images are also linked to detailed information – such as location, scientific and common names, and habitat and behavior descriptions – to support research, education and decision-making. Other images (most in the public domain) are available in the following collections: (<http://www.epa.gov/newsroom/pictures.htm> and <http://www.usa.gov/Topics/Graphics.shtml>).

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For additional information, contact Linda McConnell (lmcconnell@CRAworld.com)

Engineering services in North Carolina provided by CRA Engineering, Inc., a non-CRA owned company.

Assembly Bill No. 422

CHAPTER 597

An act to amend Section 25356.1.5 of the Health and Safety Code, and to add Section 13304.2 to the Water Code, relating to hazardous substances.

[Approved by Governor October 13, 2007. Filed with Secretary of State October 13, 2007.]

LEGISLATIVE COUNSEL'S DIGEST

AB 422, Hancock. Hazardous substances: water quality.

(1) Existing law, the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Superfund Act) imposes liability for hazardous substance removal or remedial actions and requires the Department of Toxic Substances Control to adopt, by regulation, criteria for the selection and for the priority ranking of hazardous substance release sites for removal or remedial action under the act. The California Superfund Act excludes releases of petroleum from that act. The California Superfund Act requires any response action taken or approved under that act to meet certain requirements with regard to, among other things, the preparation of the health or ecological risk assessment. The act requires the exposure assessment of that risk assessment to meet specified requirements, including the development of reasonable maximum estimates of exposure for both current land use conditions and reasonably foreseeable future land use conditions at the site.

This bill would require that the exposure assessment of any health or ecological risk assessment prepared in conjunction with a response action taken or approved pursuant to the California Superfund Act include the development of reasonable maximum estimates of exposure to volatile organic compounds that may enter structures that are on the site or that are proposed to be constructed on the site and may cause exposure due to accumulation of those volatile organic compounds in the indoor air of those structures.

(2) Existing law, the Porter-Cologne Water Quality Control Act (water quality control act), requires a person who discharges waste into the waters of the state in violation of waste discharge requirements or other order or prohibition issued by a regional board or the state water board, upon the order of that regional board or the state board, to clean up the waste or to abate the effects of the waste. The act subjects a person who violates a cleanup or abatement order to civil penalties.

This bill would authorize the state board or a regional board to require a person conducting cleanup, abatement, or other remedial action for a brownfield site, as defined, to assess the potential human health or ecological

risks caused or created by the discharge using human health and environmental screening levels or a site-specific assessment of risks.

The bill would provide that this authority applies only to an order issued by the state board or a regional board on or after January 1, 2008, but the bill would allow the state board or a regional board to require a site-specific assessment of human health or ecological risks at a brownfield site that is subject to an order issued before January 1, 2008, pursuant to the water quality control act as it read on December 31, 2007. The bill would provide that if the state board or a regional board requires a site-specific assessment of human health or ecological risks at a brownfield site that is subject to an order issued before January 1, 2008, the state board or a regional board would be required to make a specified determination.

The people of the State of California do enact as follows:

SECTION 1. Section 25356.1.5 of the Health and Safety Code is amended to read:

25356.1.5. (a) Any response action taken or approved pursuant to this chapter shall be based upon, and no less stringent than, all of the following requirements:

(1) The requirements established under federal regulation pursuant to Subpart E of the National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. 300.400 et seq.), as amended.

(2) The regulations established pursuant to Division 7 (commencing with Section 13000) of the Water Code, all applicable water quality control plans adopted pursuant to Section 13170 of the Water Code and Article 3 (commencing with Section 13240) of Chapter 4 of Division 7 of the Water Code, and all applicable state policies for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7 of the Water Code, to the extent that the department or the regional board determines that those regulations, plans, and policies do not require a less stringent level of remediation than the federal regulations specified in paragraph (1) and to the degree that those regulations, plans, and policies do not authorize decisionmaking procedures that may result in less stringent response action requirements than those required by the federal regulations specified in paragraph (1).

(3) Any applicable provisions of this chapter, to the extent those provisions are consistent with the federal regulations specified in paragraph (1) and do not require a less stringent level of remediation than, or decisionmaking procedures that are at variance with, the federal regulations set forth in paragraph (1).

(b) Any health or ecological risk assessment prepared in conjunction with a response action taken or approved pursuant to this chapter shall be based upon Subpart E of the National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. 300.400 et seq.), the policies, guidelines, and practices of the United States Environmental Protection

Agency developed pursuant to the federal act, and the most current sound scientific methods, knowledge, and practices of public health and environmental professionals who are experienced practitioners in the fields of epidemiology, risk assessment, environmental contamination, ecological risk, fate and transport analysis, and toxicology. Risk assessment practices shall include the most current sound scientific methods for data evaluation, exposure assessment, toxicity assessment, and risk characterization, documentation of all assumptions, methods, models, and calculations used in the assessment, and any health risk assessment shall include all of the following:

(1) Evaluation of risks posed by acutely toxic hazardous substances based on levels at which no known or anticipated adverse effects on health will occur, with an adequate margin of safety.

(2) Evaluation of risks posed by carcinogens or other hazardous substances that may cause chronic disease based on a level that does not pose any significant risk to health.

(3) Consideration of possible synergistic effects resulting from exposure to, or interaction with, two or more hazardous substances.

(4) Consideration of the effect of hazardous substances upon subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations, that are identifiable as being at greater risk of adverse health effects due to exposure to hazardous substances than the general population.

(5) Consideration of exposure and body burden level that alter physiological function or structure in a manner that may significantly increase the risk of illness and of exposure to hazardous substances in all media, including, but not limited to, exposures in drinking water, food, ambient and indoor air, and soil.

(c) If currently available scientific data are insufficient to determine the level of a hazardous substance at which no known or anticipated adverse effects on health will occur, with an adequate margin of safety, or the level that poses no significant risk to public health, the risk assessment prepared in conjunction with a response action taken or approved pursuant to this chapter shall be based on the level that is protective of public health, with an adequate margin of safety. This level shall be based exclusively on public health considerations, shall, to the extent scientific data are available, take into account the factors set forth in paragraphs (1) to (5), inclusive, of subdivision (b), and shall be based on the most current principles, practices, and methods used by public health professionals who are experienced practitioners in the fields of epidemiology, risk assessment, fate and transport analysis, and toxicology.

(d) The exposure assessment of any risk assessment prepared in conjunction with a response action taken or approved pursuant to this chapter shall include the development of reasonable maximum estimates of exposure for both current land use conditions and reasonably foreseeable future land use conditions at the site.

(e) The exposure assessment of any risk assessment prepared in conjunction with a response action taken or approved pursuant to this chapter shall include the development of reasonable maximum estimates of exposure to volatile organic compounds that may enter structures that are on the site or that are proposed to be constructed on the site and may cause exposure due to accumulation of those volatile organic compounds in the indoor air of those structures.

SEC. 2. Section 13304.2 is added to the Water Code, to read:

13304.2. (a) For purposes of this section, “brownfield site” means a real estate parcel or improvements located on the parcel, or both that parcel and the improvements, that is abandoned, idled, or underused, due to environmental contamination and that is proposed to be redeveloped.

(b) The state board or a regional board may require a person conducting cleanup, abatement, or other remedial action pursuant to Section 13304 for a brownfield site to assess the potential human health or ecological risks caused or created by the discharge, using human health and environmental screening levels or a site-specific assessment of risks.

(c) In conducting a site-specific assessment of human health or ecological risks, the discharger shall address all of the following factors to the extent relevant based on site-specific conditions:

(1) An evaluation of risks posed by acutely toxic hazardous substances.

(2) An evaluation of risks posed by carcinogenic or other hazardous substances that may cause chronic disease.

(3) Consideration of possible synergistic effects resulting from exposure to, or interaction with, two or more hazardous substances.

(4) Consideration of the effect of hazardous substances upon subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, or other subpopulations that are identifiable as being at greater risk than the general population of adverse health effects due to exposure to hazardous substances.

(5) Consideration of exposure level and body burden level that alter physiological function or structure in a manner that may significantly increase the risk of illness and of exposure to hazardous substances in all media, including, but not limited to, exposures in drinking water, food, ambient and indoor air, or soil.

(6) The development of reasonable maximum estimates of exposure for both current land use conditions and reasonably foreseeable future land uses at the site.

(7) The development of reasonable maximum estimates of exposure to volatile organic compounds that may enter structures that are on the site or that are proposed to be constructed on the site and that may cause exposure due to accumulation of these volatile organic compounds in the indoor air of those structures.

(d) The state board or a regional board may document its decision to require a site-specific assessment of human health or ecological risks in a letter issued to the discharger pursuant to Section 13267, through amendment

of the cleanup and abatement order issued pursuant to Section 13304, or through other written means that the board deems appropriate.

(e) (1) Except as provided in paragraph (2), this section applies only to an order issued by the state board or a regional board issued pursuant to Section 13304 on or after January 1, 2008.

(2) The state board or a regional board may require a site-specific assessment of human health or ecological risks at a brownfield site that is subject to an order issued before January 1, 2008, only if the state board or a regional board makes a determination that site-specific circumstances demonstrate the need for that assessment. A site-specific assessment pursuant to this paragraph shall be done in accordance with the authority granted to the state board or a regional board pursuant to this division, as it read on December 31, 2007.