TITLE: Environmental Hazards in Proximity to Schools

NUMBER: REF-5892.1

ISSUER: Carlos A. Torres, Director
Office of Environmental Health and Safety

DATE: December 21, 2020

ROUTING

All Schools and Offices

PURPOSE: The purpose of this Reference Guide is to define the responsibilities of the school site administrators and the Office of Environmental Health and Safety (OEHS) regarding the identification of potential environmental hazards in proximity to Los Angeles Unified schools and provide guidance to assist site administrators in procuring the necessary information.

MAJOR CHANGES: This Reference Guide replaces REF-5892.0 (October 8, 2012) *Environmental Hazards in Proximity to Schools.* The responsibilities of site administrators and OEHS was updated in the Roles and Responsibilities section. In the Types of Environmental Hazards section, new resources were added for identifying:

- facilities containing toxic chemical or radioactive materials,
- transportation routes of vehicles carrying hazardous materials,
- underground gas and oil pipelines, and
- the Seismic Building Evaluation Status of buildings on a campus.

In addition, the Related Resources Section was updated.

INSTRUCTIONS: Outlined below is a listing of responsibilities to ensure proper identification of potential environmental hazards.

A. Roles and Responsibilities

Site Administrators

- When preparing the Integrated Safe School Plan for your school, download and review the environmental hazards survey for your school and utilize the resources provided in this Reference Guide to identify environmental hazards near your school. To access the survey for your school, either follow this link:
  - Environmental Hazards Near Schools

  or
  - go to the OEHS website (https://achieve.lausd.net/oehs) and select *Environmental Hazards Near Schools* under the *Programs* tab in the menu near the top of the page.
- Conduct a physical survey of the community adjacent to your school to supplement information provided by OEHS or obtained from the resources provided in this Reference Guide.

- If you identify new or previously unidentified environmental hazards during the physical survey or through other means, notify OEHS at (213) 241-3199.

OEHS

- Provide guidance to schools on the identification of environmental hazards.
- Periodically conduct evaluations of schools to identify nearby high-risk facilities that may or are likely to contain toxic chemicals or radioactive materials and publish findings on the OEHS website at Environmental Hazards Near Schools.
- Provide periodic updates to the OEHS website when new information is received from schools and/or third parties regarding new or previously unidentified high-risk facilities.

B. Types of Environmental Hazards

The following provides information and guidance for procuring information on potential hazards.

1. Facilities Containing Toxic Chemicals or Radioactive Materials

The normal operation of some industrial facilities presents a risk of explosion, or may potentially expose school occupants to hazardous air emissions.

If industrial facilities are present near a school, additional information regarding these facilities may be obtained from the California Environmental Protection Agency's (CalEPA) Regulated Site Portal (Portal). This web based site combines data about environmentally regulated sites and facilities in California into a single, searchable database and interactive map. Site administrators can access the Portal at https://siteportal.calepa.ca.gov/ to review regulated sites near their school.

To use the Portal to identify facilities near an LA Unified school:

- First zoom in to a school location on the map by either using the search bar to enter the school's address or by using a mouse and zoom tools;
- Once the user has zoomed in to a school site, the map shows all the regulated sites near the school;
- Users can click on the regulated sites to find out additional information about the sites; and
- The Portal also includes tools to measure the distances between locations on the map.

2. High Voltage Power Lines and Transformers

Downed power lines and electrical conveyance equipment such as transformers carry an electrical current strong enough to cause serious injury or even death. In the event of windstorms or a natural disaster, such as an earthquake, power lines and associated equipment may fall in close proximity of a school and/or adjacent to the school, which may impede the path of egress, should an evacuation be required.

The electricity in a power line will always follow a path to ground, which may include a tree, vehicle, or fence that comes in contact with the power source. These objects then become energized. Once electricity reaches the ground, the ground itself becomes energized. The electricity then flows through the ground over a defined area. The voltage in the ground is generally high at the point of electrical contact. It is important that you never touch a downed or dangling wire or anyone or anything in contact with it. Always assume a downed line is still energized. Report any downed power lines immediately by calling 911. Keep students, staff and any other people away from the downed power lines by use of caution tape or barricades installed at a safe distance from the power lines. If installing caution tape or barricades is infeasible, cannot be done safely or would not adequately restrict access, designate a staff person to prevent people from approaching the downed power line.

Site administrators should use physical surveys to identify nearby power lines and electrical equipment. An illustrated guide identifying electric power system components may be accessed via the U.S. Department of Labor website at http://www.osha.gov/SLTC/etools/electric_power/illustrated_glossary/. Site administrators should establish evacuation routes that avoid any identified electrical conveyance equipment when feasible.

3. Transportation Routes of Vehicles Carrying Hazardous Materials

Typically, transportation accidents involving hazardous materials are a small proportion of overall traffic accidents. However, the potential consequences of a hazardous material release can be severe. A hazardous material is any material that, in a particular amount and form, may pose an unreasonable risk to health, safety and/or property. Hazardous materials include gasoline, explosives, radioactive materials, compressed gas and many other substances.

It is advisable that site administrators utilize information provided by OEHS along with observed transportation routes such as major highways and rail line rights-of-way to assist in developing emergency plans (e.g., shelter-in-place and/or emergency evacuation routes) associated with these potential sources.

An interactive map displaying the location of major rail lines may be accessed via the Federal Railroad Administration website at https://fragis.fra.dot.gov/GISFRASafety/. There is also an interactive map displaying the location of major highways available via the California Department of Transportation (Caltrans) website at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=026e830c914c495797c969a3e5668538.

4. Underground Gas and Oil Pipelines

Buried pipelines are commonly used for the conveyance of natural gas and petroleum products. A sudden rupture of a high-pressure pipeline can result in the release of material within the line creating a potential fire and explosion hazard.

The U.S. Department of Transportation requires the use of signs to indicate the location of underground pipelines. Markers indicate the general location of the pipeline and are located at road, railroad and navigable waterway crossings. Markers are also posted along the pipeline right-of-way.

The National Pipeline Mapping System (NPMS) contains the locations of and information about gas transmission and hazardous liquid pipelines and Liquefied Natural Gas (LNG) plants which are under the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). Site administrators can access the NPMS Public Viewer at https://pvnpms.phmsa.dot.gov/PublicViewer/ to review pipeline information near their school. Please note, that the NPMS Public Viewer does not contain gas gathering or distribution pipelines, such as lines which deliver gas to a customer's home. Therefore, not all pipelines in an area will be visible in the Public Viewer.

To use the NPMS Public Viewer to identify pipelines near an LA Unified school:

- First select California and Los Angeles County on the Welcome Page (please see the disclaimer, which states that, *"All NPMS data is for reference purposes only. It should never be used as a substitute for contacting a one-call center prior to excavation activities. Please call 811 before any digging occurs."*
- Once the Map Viewer opens, you can create a pin at the school's location by entering the school's address in the search bar near the upper right corner of the page.
- You can then zoom into the area of the school using the zoom tools. Please note that the Public Viewer limits the scale of pipeline maps, in accordance with PHMSA's security policy. When you are zoomed in

closer than a 1:24,000 scale (above zoom level 14), the pipelines disappear from the map.

Site administrators should access the above referenced NPMS Public Viewer and conduct a physical survey around their school and proposed school routes in the event of an off-site evacuation to identify the presence of buried pipelines. Evacuation routes should be revised based on location of any identified conveyance lines. For questions about pipelines identified using the NPMS Public Viewer or during the physical survey, Site administrators can contact OEHS at (213) 241-3199.

5. Reservoirs, Water Towers and Tanks

Reservoirs and above ground water tanks or towers provide storage for drinking, irrigation, fire suppression and related applications. A sudden release of water from a reservoir or rupture from an above ground water tank or tower can result in the release of a large volume of water at the point of failure. As a result, subsequent flooding of the immediate area and along the path of drainage to lower ground levels may occur.

Knowledge of these sources and their location near a school can provide information regarding the potential for a flood event to occur. Based upon this information, emergency response/evacuation plans can be developed to incorporate the relocation of students and staff to higher ground. Site administrators can obtain information regarding the location of sources within their community by contacting OEHS at (213) 241-3199.

6. Unreinforced Masonry Buildings

Unreinforced masonry buildings are typically the most seismically vulnerable type of building construction. When unreinforced masonry buildings are compromised during an earthquake, heavy debris can fall on adjacent buildings or onto the exterior where pedestrians are located. When masonry debris falls, serious injury and even death can result. A single brick weighs from 6 to 12 pounds and just one square foot of a typical wall weighs 120 pounds or more. Parapets, which are the short walls that often extend around the perimeter of a roof, are particularly vulnerable, as are chimneys and cornices (the decorative ledges that run around the top of the building).

Los Angeles Unified has surveyed and seismically retrofitted all unreinforced masonry buildings throughout its school campuses. For the Seismic Building Evaluation Status of buildings on their campus, site administrators can visit Facilities Service Division's Seismic Safety of School Buildings website at https://www.laschools.org/new-site/ab300/. Site administrators should establish

off-site evacuation routes based upon the location of any identified unreinforced masonry buildings.

C. Intergovernmental Review

Periodically, OEHS receives notice from the South Coast Air Quality Management District (SCAQMD) regarding businesses that apply for permits to construct/operate new equipment within 1000 feet of existing schools. Specifically, SCAQMD Rule 212 requires public notification for any new or modified permit unit that has the potential to emit air contaminants. OEHS receives this information from the SCAQMD for review and approval prior to distribution to schools. SCAQMD Rule 212 notices received directly by a school should be forwarded to OEHS (by scanning and emailing the notices to AQMDRule212Notices@lausd.net or mailing them to OEHS at 333 South Beaudry Avenue, 21st Floor, Los Angeles, CA 90017 for review and approval prior to distribution.

In addition, OEHS receives notice from local land use and planning agencies of special permits (e.g., conditional uses) and variances for businesses within a given community. Such actions are generally discretionary in nature and subject to the provisions of the California Environmental Quality Act (CEQA). Referred to as the District's Intergovernmental Review Program, OEHS staff evaluates proposed projects to determine their potential impacts to nearby schools. Potential impacts include construction- related traffic, pedestrian safety and noise and air quality.

When school administration or staff become aware of other commercial/industrial facilities or community hazards within proximity of their school that were not previously identified, please notify OEHS at (213) 241-3199. Schools that experience incidents involving odorous or potentially toxic emissions shall promptly report them to OEHS at (213) 241-3199 and the SCAQMD at (800) 288-7664.

RELATED RESOURCES:

"Procedures – Responding to Toxic Air Emissions." Office of Environmental Health and Safety, February 2003.
https://achieve.lausd.net/cms/lib/CA01000043/Centricity/domain/135/pdf%20files/03-02.pdf

Board Resolution on Siting of New Schools Near Industrial Facilities, January 22, 2008.
https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/135/Air%20Pollution%20Resolution_2008.pdf

Board Resolution on High Risk Land Use, January 14, 2003.
https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/135/HighRiskLandUse_Resolution_2003.pdf

South Coast Air Quality Management District: http://www.aqmd.gov/

ASSISTANCE: For assistance or further information, please contact OEHS (phone: (213) 241-3199, Email: OEHSQuestions@lausd.net, website: https://achieve.lausd.net/oehs).