

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report

Proposed Amended Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools

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EXECUTIVE SUMMARY

Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools, was adopted in 2005 and applies to new or relocated facilities emitting toxic air contaminants. Rule 1401.1 is designed to be more health-protective for school children by establishing more stringent risk requirements for new and relocated facilities emitting toxic air contaminants near schools, thereby reducing the exposure of toxic emissions on school children. In recent years, research indicates that early-life exposure to air toxics contributes to an increased lifetime risk of developing cancer, or other adverse health effects, compared to exposure in adulthood. This research prompted the Office of Environmental Health Hazard Assessment (OEHHA) to update the risk assessment methodology to include age-sensitivity factors for young children. Based on this OEHHA update, the definition of “school” included in several South Coast AQMD air toxics rules has been updated to include early learning and development programs serving pre-kindergarten children. Proposed Amended Rule 1401.1 (PAR 1401.1) would incorporate the same expanded definition of “school” to include early learning and development programs. PAR 1401.1 also establishes consistency with other South Coast AQMD air toxics rules by removing the exclusion of unimproved school property. This will ensure that any toxic-emitting facility near a center with young children will meet stricter air toxic risk requirements. To estimate the impacts of PAR 1401.1, a screening assessment was conducted based on the proximity between new and relocated facilities permitted within the last five years and early learning and development centers to identify permitting actions that potentially would have been subject to additional review under PAR 1401.1. Based on this assessment, out of approximately 6,000 applicable facilities that submitted permit applications within the last five years, an average of 91 facilities per year would have been subject to additional review under the provisions of PAR 1401.1. These facilities must demonstrate that the applicable risk requirements are met as required in Rule 1401.1.

CHAPTER 1: BACKGROUND

INTRODUCTION

HEALTH RISK AND CANCER POTENCY IN EARLY LIFE

NEED FOR PROPOSED AMENDMENTS

PUBLIC PROCESS AND OUTREACH

INTRODUCTION

The South Coast Air Quality Management District (South Coast AQMD) has a robust and comprehensive regulatory program to address toxic air contaminants. South Coast AQMD Rules 1401 – New Source Review of Toxic Air Contaminants, 1401.1 – New Source Review of Toxic Air Contaminants, and 1402 – Control of Toxic Air Contaminants from Existing Sources, are referred to as the “umbrella” rules that specify requirements for all sources. Rules 1401 and 1401.1 apply to permitting activities, and Rule 1402 implements requirements for existing sources. Rule 1401 applies to new and modified permitted sources. Rule 1401.1 establishes additional requirements for permitted sources near schools. Rules 1401 and 1401.1 are designed to protect the public from the health risks posed by toxic air contaminants (TACs) emitted by stationary sources. The following paragraphs summarize Rule 1401 and 1401.1 provisions.

Rule 1401 – New Source Review of Toxic Air Contaminants

Rule 1401 is a permit unit-based rule that applies to any increase in toxic emissions from new, relocated, or modified equipment. Under Rule 1401, new and modified permitted sources cannot exceed a Maximum Individual Cancer Risk (MICR) of one in one million if the source is not equipped with Best Available Control Technology for toxics (T-BACT). If T-BACT is installed, the MICR cannot exceed ten in one million. The MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants. Rule 1401 also has requirements for cancer burden, which represents the estimated increase in the occurrence of cancer cases in a given population due to exposure to TACs, as well as non-cancer chronic and acute hazard index thresholds. Rule 1401 has been amended several times to add or modify new compounds or risk values to the list of TACs as they are identified and as risk values are finalized or amended by the state.

Rule 1401.1 – New Source Review of Toxic Air Contaminants

Rule 1401.1 was adopted in 2005 and last amended in 2015. Rule 1401.1 is designed to be more health protective for school children by establishing more stringent risk requirements related to facility-wide cancer risk and non-cancer acute hazard index (HI) and chronic HI for new and relocated facilities emitting TACs near schools. For new facilities, the rule requires the facility-wide cancer risk to be less than one in one million at any school or school under construction within 500 feet of the facility. For the purposes of PAR 1401.1, a new facility is defined as any facility that was permitted after November 4, 2005 or with applications deemed complete after February 2, 2006. If there are no schools within 500 feet, the same risk levels must be met at any school or school under construction within 500 to 1,000 feet unless there is a residential or sensitive receptor within 150 feet of the facility. If there is a residential or sensitive receptor within 150 feet of the emissions source (permit unit), due to the application of Rule 1401 risk requirements, the risk to the school that is located at least another 350 feet away can reasonably be expected to have decreased below one in one million cancer risk. Accordingly, if the nearest school is between 500 to 1,000 feet and there is a residential or sensitive receptor within 150 feet, Rule 1401.1 does not require that risk at the school be demonstrated. For relocated facilities, existing Rule 1401.1 requires that a relocating facility must demonstrate, for each school or school under

construction within 500 feet of the facility, that either: 1) the risk at the school from the facility in its new location is no greater than the risk at that same school when the facility was at its previous location; or 2) the facility-wide cancer risk at the school does not exceed one in one million. Unlike other South Coast AQMD risk-based rules, the required risk thresholds of Rule 1401.1 do not change based on whether the source is equipped with T-BACT.

HEALTH RISK AND CANCER POTENCY IN EARLY LIFE

OEHHA is a state agency under the California Environmental Protection Agency that establishes risk exposure information (i.e., risk values) for TACs. A health risk assessment estimates the increased probability that an individual would contract cancer or experience other adverse health effects because of exposure to listed TACs. OEHHA's Risk Assessment Guidelines are incorporated in the South Coast AQMD's Risk Assessment Procedures, which are required to implement Rules 1401 and 1401.1.

In 2003, OEHHA developed and approved the Health Risk Assessment Guidance document. Since 2003, OEHHA and the U.S. Environmental Protection Agency (U.S. EPA) have conducted additional research to address growing concerns regarding children's exposure to environmental chemicals, including the possibility that young children may be more susceptible than adults to injury caused by those chemicals. The findings from this research indicate that the risks of cancer from exposures to carcinogens from conception through puberty can differ from exposures in adulthood.¹ In March 2015, OEHHA revised its Risk Assessment Guidelines ("2015 OEHHA Guidelines") to ensure infants and children are explicitly addressed in assessing risk. The 2015 OEHHA Guidelines incorporate age sensitivity factors and other changes which have increased estimated cancer risk for residential and sensitive receptors. Based on the change in methodology, the estimated cancer risk has increased by approximately three times, and more than three times in some cases, depending on whether the toxic air contaminant has multiple pathways of exposure in addition to inhalation.²

NEED FOR PROPOSED AMENDMENTS

Based on the 2015 OEHHA Guidelines regarding childhood sensitivity, the scope of provisions related to schools have been updated in many South Coast AQMD air toxic rules to incorporate early learning and development programs. Table 1-1 includes a list of these recently adopted and amended rules where the definition of school was expanded to account for the increased impacts from exposure to TACs during the early childhood years.

¹ OEHHA, Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures, May 2009, obtained on November 1, 2022, from <https://oehha.ca.gov/media/downloads/cmr/tsdcancerpotency.pdf>

² OEHHA, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessment, February 2015, obtained on November 1, 2022, from <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>

Table 1-1 Recently Adopted and Amended Air Toxics Rules Where Definition of School Accounted for Concerns of Early Childhood Exposure

Rule	Title
1407.1	Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations
1426	Emissions from Metal Finishing Operations
1466	Control of Particulate Emissions from Soils with Toxic Air Contaminants
1469	Hexavalent Chromium Emissions Chromium Electroplating and Chromic Acid Anodizing Operations
1480	Ambient Monitoring and Sampling of Metal Toxic Air Contaminants, 1426 – Emissions from Metal Finishing Operations

For reference, the school definition included in the rules listed in Table 1-1 is as follows:

SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property.

The definition of school in Rule 1401.1 is inconsistent with recently adopted or amended South Coast AQMD air toxics rules. Rule 1401.1 currently defines a school as a public or private facility used for educating 12 or more children in kindergarten and grades 1 to 12; however, it does not include centers serving pre-kindergarten children. To ensure consistency with recently adopted or amended South Coast AQMD air toxics rules and address the risk of early life exposure, PAR 1401.1 will update the definition of school to include early learning and development programs serving pre-kindergarten children and other child care centers. PAR 1401.1 also establishes consistency with other South Coast AQMD air toxics rules by removing the exclusion of unimproved school property in the PAR 1401.1 rule language. This will provide a greater assurance that any toxic-emitting facility located near a center with younger children will meet potentially more stringent toxic risk requirements. PAR 1401.1 is also consistent with most current scientific information and the 2015 OEHHA Guidelines regarding the importance of reducing early life exposures to air toxics in younger children.

PUBLIC PROCESS AND OUTREACH

The development of PAR 1401.1 is being conducted through a public process. South Coast AQMD staff has distributed about 22,000 Public Workshop notices to engage stakeholders (including all permit holders) regarding PAR 1401.1. A Public Workshop was held on December 13, 2022, via Zoom to present preliminary draft rule language for PAR 1401.1

and receive public comments. The South Coast AQMD Stationary Source Committee received a PAR 1401.1 briefing at a public meeting on January 20, 2023.

CHAPTER 2: PROPOSED AMENDED RULE 1401.1

INTRODUCTION

PROPOSED AMENDMENTS TO RULE 1401.1

INTRODUCTION

In 2015, OEHHA updated the risk assessment methodology based on research indicating early-life exposures to air toxics contribute to an increased lifetime risk of developing cancer, or other adverse health effects, compared to exposures that occur in adulthood. The 2015 OEHHA Guidelines incorporate this revised methodology and include age and sensitivity factors for young children. The 2015 OEHHA Guidelines and findings are reflected in South Coast AQMD's Risk Assessment Procedures.³ Most air toxics rules in the South Coast AQMD air toxics regulatory program currently reflect these OEHHA findings and have expanded the scope of provisions related to schools to include younger children by including early learning and development programs in the definition of school.

PROPOSED AMENDMENTS TO RULE 1401.1

Rule 1401.1 specifies the requirements for facility-wide cancer risk and non-cancer acute hazard index, and chronic hazard index for new and relocated facilities emitting TACs near schools.

Rule 1401.1 paragraph (c)(13) currently defines a school as:

SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for purposes of the education of more than 12 children at the school, including in kindergarten and grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property, but does not include unimproved school property.

PAR 1401.1 amends the definition of a school to expand the scope to include pre-kindergarten children. It allows the school definition to be consistent with other air toxics rules by adding the following rule language:

A school also includes an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers.

Existing Rule 1401.1 excludes unimproved school property. Unimproved property is any property on which there are no buildings or play areas and where it can reasonably be expected that no children will be present.⁴ Most recently amended South Coast AQMD air toxic rule provisions related to schools have included unimproved school property because children may still be present in some unimproved areas. Additionally, those currently unimproved areas could be developed or improved in the future; removing this language

³ South Coast AQMD, Risk Assessment Procedures for Rules 1401, 1401.1, and 212 Version 8.1, September 2017, obtained on November 22, 2022, from <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf>

⁴ South Coast AQMD, Governing Board meeting, October 2005, Agenda Item #26. Proposed Rule 1401.1 - Requirements for New and Relocated Facilities Near Schools, obtained on November 22, 2022, from <http://www.aqmd.gov/nav/about/governing-board/agendas-minutes>

would ensure the protection of children. For consistency with other South Coast AQMD air toxics rules and the protection of children, PAR 1401.1 removes the unimproved property language.

With the above-described revisions, the definition of school in PAR 1401.1 paragraph (c)(17) would be identical to other recently amended or adopted South Coast AQMD air toxics rules. It would consist of the following revised text with revisions from the existing rule language denoted in underline and strike-out:

SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for ~~purposes of~~ the education of more than 12 children at the school, ~~including in kindergarten through and grades 1 to grade 12., inclusive, but does not include any private school in which education is primarily conducted in private homes.~~ School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property, ~~but does not include unimproved school property.~~

Rule 1401.1 provisions also apply to a school under construction. Existing Rule 1401.1, paragraph (c)(15) defines a “School under Construction” as:

any property that meets any of the following conditions and the Executive Officer has been notified: (A) construction of a school has commenced; or (B) of a CEQA Notice for the construction of a school; or (C) a school has been identified in an approved local government specific plan.

Rule 1401.1 provisions will continue to apply to a school under construction, and under PAR 1401.1, these provisions will apply to early learning and development programs.

Other Administrative Amendments

Applicability – Subdivision (b)

The Rule 1401.1 applicability subdivision currently states that permit applications will be evaluated based on the Rule 1401 list of toxic air contaminants and risk assessment procedures in effect at the time the application is deemed complete. PAR 1401.1 includes an update to subdivision (b) to clarify that permit applications will also be evaluated based on the Rule 1401.1 provisions in effect at the time the application is deemed complete.

Rule 1401.1 – Tables 1 and 2

Existing Rule 1401.1 includes a summary of requirements for new and relocated facilities in Table 1 and Table 2, respectively. Two of the references in each of these tables are incorrect. PAR 1401.1 corrects these references, as shown in the following tables.

Table 2-1 Summary of Requirements for New Facilities (Table 1 of Existing Rule 1401.1)

Distance from New Facility to Nearest School or School Under Construction	Other Residential or Sensitive Receptor at < 150 ft	*Risk Demonstration at School at < 500 ft	*Risk Demonstration at School at 500 – 1,000 ft	Rule 212 Additional Information	Meet Requirements for Future Applications
		Paragraph (d)(1)	Paragraph (d)(2)	Subdivision (f-g)	Subdivision (g-h)
< 500 feet	N/A	Yes	N/A	N/A	Yes
500 – 1,000 ft	Yes	N/A	N/A	Yes	Yes
500 – 1,000 ft	No	N/A	Yes	N/A	Yes

*Risk Demonstration at school or school under construction for New Facility:
 ≤ 1 in one million cancer risk and hazard indices ≤ 1.0

Table 2-2 Summary of Requirements for Relocated Facilities (Table 2 of Existing Rule 1401.1)

Distance from Relocated Facility to Nearest School or School Under Construction	*Risk Demonstration at School at < 500 ft	Rule 212 Additional Information	Meet Requirements for Future Applications
	Subdivision (e)	Subdivision (f-g)	Subdivision (g-h)
< 500 feet	Yes	Yes	Yes
500 – 1,000 ft	N/A	Yes	Yes

* Risk Demonstration at school or school under construction for Relocated Facility:
 ≤ 1 in one million cancer risk and hazard indices ≤ 1.0
 or no increase in cancer risk or hazard indices

CHAPTER 3: IMPACT ASSESSMENT

**ADDITION OF EARLY LEARNING AND DEVELOPMENT CENTERS
IMPACT ASSESSMENT**

CALIFORNIA ENVIRONMENTAL QUALITY ACT

SOCIOECONOMIC IMPACT ASSESSMENT

INCREMENTAL COST-EFFECTIVENESS

**DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION
40727**

COMPARATIVE ANALYSIS

ADDITION OF EARLY LEARNING AND DEVELOPMENT CENTERS

PAR 1401.1 would expand the scope of schools to be considered when evaluating permit applications for new and relocated facilities by extending risk requirements to include centers that serve pre-kindergarten children. The California Department of Social Services (CDSS) issues licenses to child care centers in California. To identify early learning and development centers under PAR 1401.1, the CDSS child care center database⁵ is used as it encompasses pre-kindergarten facilities, including child care centers, day care centers, and infant care centers.

Table 3-1 provides an inventory of early learning and development centers within the jurisdictional boundaries of the South Coast AQMD. As shown in the Table, the CDSS database categorizes child care facilities by center type (child care/day care center and infant care center). It should be noted the CDSS also issues licenses to child care centers operating out of private homes, but these are not subject to existing Rule 1401.1 requirements or PAR 1401.1 provisions and were not included in Table 3-1.

Table 3-1 Licensed Child Care Centers in South Coast AQMD

Child Care Center Type	Age of Children	Definition (22 CCR § 101152 Definitions)	Number of Centers
Child Care Center or Child Day Care Center	2 to 5	"Child Care Center" or "Day Care Center" (or "center") means any child care facility of any capacity, other than a family child care home as defined in Section 102352f.(1), in which less than 24-hour per day nonmedical care and supervision are provided to children in a group setting. The term "Child Care Center" supersedes the term "Day Care Center" as used in previous regulations.	3,132
Infant Care Center	0 to 2	"Infant Care Center" means any child care center or part of a child care center of any capacity where less than 24-hour per day nonmedical care and supervision are provided to infants in a group setting.	371

The CDSS-licensed child care centers presented in Table 3-1 illustrate the impact of the expanded scope of the definition of school under PAR 1401.1. These child care centers primarily serve children from infant to age five; therefore, by extending the scope of the definition of school to include these centers, pre-kindergarten children are provided the same protection from air toxics emitted from new and relocated facilities as school-aged children. The age ranges for each child care center type were determined through a combination of definitions contained in the California Code of Regulations and an exchange of emails with an associate governmental program analyst at the CDSS. The data

⁵ California Department of Social Services, Child Care Centers, November 2022, obtained on November 22, 2022, from <https://www.cdss.ca.gov/carefacilitysearch/DownloadData>

presented in Table 3-1 has been processed to remove centers already considered schools under the current 1401.1 school definition. For example, centers on the CDSS database that included the term “elementary school,” “middle school,” or “high school” in their name were removed as these centers would currently be subject to the Rule 1401.1 provisions. Additionally, some centers included infant and child care services at the same address, so the duplicate addresses were removed in these instances. Overall, the list of facilities reveals approximately 3,500 centers that can potentially be considered as additional schools when implementing PAR 1401.1.

As previously mentioned, the updated Schools definition under PAR 1401.1 is presently included in other South Coast AQMD toxics rules. The South Coast AQMD anticipates that for PAR 1401.1, it would follow the same procedures for identifying schools as what is currently done for other South Coast AQMD toxics rules, such as Rule 1469. These procedures include a web-based mapping search for terms such as “pre-schools,” “elementary schools,” “middle schools,” and “high schools,” as well as a search of the Head Start program website⁶ to identify Early Head Start, Head Start, First Five, and Child Development Centers.

IMPACT ASSESSMENT

Localized Toxic Impacts

In general, the Rule 1401.1 facility-wide risk requirements are more stringent than the current equipment-based requirements in Rule 1401 for new or relocated facilities that elect to site near schools. Therefore, the extended coverage of PAR 1401.1 is expected to result in lower toxic risk levels for children where toxic emitting facilities are close to an early learning and development center than would be allowed under current rules. The South Coast AQMD’s Risk Assessment Procedures provide four levels of screening risks: Tiers 1, 2, 3, and 4. The tiers are progressively more complex, require increasingly more site-specific details, and provide more refined risk estimates. Under PAR 1401.1 provisions, affected facilities near an early learning and developmental center may need to conduct more detailed risk assessments, including dispersion modeling (Tier 3 or Tier 4). Facilities that cannot meet the risk requirements of PAR 1401.1 would have the option to limit their throughput, capacity, or hours of operation; install additional controls; establish minimum distances from a school; or locate or relocate elsewhere within the same general area, rather than near a school, to ensure that PAR 1401.1 requirements are met.

Permitting Impacts

The amendments in PAR 1401.1 will be effective upon rule adoption. As mentioned in Chapter 2, PAR 1401.1 includes text to clarify that permit applications will be evaluated based on the Rule 1401.1 provisions in effect at the time the application is deemed complete. Historical permitting data were analyzed to estimate the PAR 1401.1 impacts. This “look back” approach was also used during the development of Rule 1401.1 in 2005. The goal of this exercise is to identify permitting actions that would have been subject to additional review under PAR 1401.1. To accomplish this task, permitting data for the past

⁶ <https://eclkc.ohs.acf.hhs.gov>

five years were studied to identify facilities located near the CDSS-identified child care centers, which would have been subject to PAR 1401.1. Rule 1401.1 provisions do not apply to existing facilities, which is defined in Rule 1401.1 paragraph (c)(3) as any facility that had equipment requiring a Permit to Construct/Operate before November 2005 or those where an application for a Permit to Construct/Operate is deemed complete before February 2, 2006. Therefore, the evaluation of recently submitted permits for PAR 1401.1 applicability was limited to “new” facilities that were in existence after November 2005. Relocated facilities are included in the evaluation because relocated facilities are considered “new” facilities when removed existing permitted equipment is installed at another facility without a change of ownership. Based on the South Coast AQMD’s permitting database, over the last five years, permits were issued to approximately 6,000 facilities that are considered new or relocated facilities under Rule 1401.1 provisions.

The locations of these “new” facilities were compared to child care center and school locations based on data provided by CDSS and the California Department of Education (CDE). To accomplish this spatial analysis assessment, a 150-foot zone radius was added to the identified child care center locations to represent the child care center property boundary. An additional 1,000-foot buffer zone radius was added around the child care center “properties” to illustrate the applicability of PAR 1401.1 provisions. The assessment then identified the facilities that are located within the buffer zone of the child care centers. To exclude facilities that are located near the existing definition of school (i.e., high school, elementary schools, etc.), the identified facilities were then compared to school locations based on data provided by the CDE. The schools considered for the spatial analysis are defined as schools under the current definition of “School” in existing Rule 1401.1. Identified facilities within 1,150 feet of a school as defined in existing Rule 1401.1 were then excluded from further consideration as these facilities are already potentially subject to Rule 1401.1. Based on this assessment, it is conservatively estimated that out of approximately 6,000 “new” facilities that submitted permit applications within the last five years, an average of 91 facilities per year would have been subject to additional review under the provisions of PAR 1401.1. The number of applicable facilities located within the 1,150-foot buffer zone is considered a conservative estimate as some applicable facilities included permits issued for equipment that might not have emitted air toxic emissions.

Unimproved School Property

Under the provisions of PAR 1401.1, protections to pre-kindergarten and school aged children are extended to unimproved school property. This proposed revision is consistent with other recently adopted and amended South Coast AQMD air toxics rules. In consultation with Los Angeles Unified School District (LAUSD), the largest school district in South Coast AQMD’s jurisdiction, and Long Beach Unified School District (LBUSD), there are very few instances of unimproved school property located adjacent to schools. These school districts also noted several examples of school properties that were a former school or were administrative properties that include now vacant buildings. School properties with vacant buildings will not be impacted under PAR 1401.1 provisions because the properties do not meet the definition of a school; vacant buildings are not used for purposes of the education of more than 12 children.

Extending protections to vacant land adjacent to a school that may be used by children or that may be utilized for school purposes in the future is consistent with the intent of South Coast AQMD air toxics rules and is not expected to impact surrounding facilities seeking permits based on school district consultations that indicate there are relatively few occurrences of vacant school property adjacent to schools.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1401.1) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062, and if the proposed project is approved, the Notice of Exemption will be filed for posting with the State Clearinghouse of the Governor’s Office of Planning and Research, and with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties.

SOCIOECONOMIC IMPACT ASSESSMENT

California Health & Safety Code §40440.8 and §40728.5 require a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. This assessment shall include affected industries and range of probable costs, effectiveness of control alternatives and emission reduction potential, and make a good faith effort to minimize adverse socioeconomic impacts by analyzing the following elements:

- (1) The type of industries or business, including small business, affected by the rule or regulation.
- (2) The impact of the rule or regulation on employment and the economy of the region affected by the adoption of the rule or regulation.
- (3) The range of probable costs, including costs to industry or business, including small business, of the rule or regulation.
- (4) The availability and cost-effectiveness of alternatives to the rule or regulation being proposed or amended.
- (5) The emission reduction potential of the rule or regulation.
- (6) The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards.

Cost-effectiveness analysis for best available retrofit control technology pursuant to Health & Safety Code §40920.6 does not apply to PAR 1401.1; moreover, cost effectiveness in terms of dollars per ton is not meaningful for air toxic regulations since many other factors besides the amount of pollution affect the health risk such as the potency of an air toxic and the location of receptors.

PAR 1401.1 – Requirements for New and Relocated Facilities Near Schools establishes more stringent risk requirements for new and relocated facilities emitting toxic air contaminants near schools – with a broader definition of “schools” that include early learning and development programs, as well as the inclusion of unimproved school property in the consideration for proximity to a potentially TAC emitting facility. The expanded definition of schools is expected to result in more potentially affected facilities subject to the health risk assessment requirement of Rule 1401.1. The proposed amendment

does not impose any new emissions limitations. Since the requirement applies to new and relocated facilities, the number of potentially affected facilities cannot be predicted, but staff is estimating future impacts relative to historic permit actions and currently identified schools meeting the PAR 1401.1 school definition. The result of additional health risk assessments (HRA) is assumed to quantify risks for more sensitive receptors potentially impacted by TAC emissions.

Affected Facilities and Industries

In order to quantify potentially affected facilities subject to the proposed expanded definition of schools including unimproved portions of school property, staff conducted a screening of the permit actions in the last 5 years, dating back to 2017. Based on this screening, approximately 6,000 applicable facilities with permit actions were geographically screened for proximity to known school, early learning, and development centers. The requirements of PAR 1401.1 potentially affect permitted facilities with the potential to emit toxic air contaminants, which include but are not limited to manufacturing (NAICS 31-33), technical services (NAICS 54), and other services (NAICS 81). Of the potentially affected facilities identified in the screening, more than 98 percent of the facilities with available data meet the SBA definition of a small business.⁷ The retrospective screening is not expected to predict the industries potentially affected in future permit actions; as such, it is difficult to reliably predict industry-specific impacts from PAR 1401.1. Per subdivision (e) of Rule 1401.1, risk demonstration (pursuant to paragraphs (e)(1) and (e)(2)) is required when a facility submitting a permit application is has an outer boundary within 500 feet of a school. Under the expanded definition in PAR 1401.1, staff finds that an estimated 91 additional facilities per year would be affected by the risk demonstration requirement but may not need to submit health risk assessments (HRAs), based on permit evaluations and a modeling assessment conducted by staff.

Compliance Costs

For health risk assessments 1 through 4, only Tier 3 and Tier 4 HRA investigations were associated with costs to facilities due to the use of more complex dispersion modeling. Health risk assessment costs used in the 2017 amendments to Rule 1401 – New Source Review of Toxic Air Contaminants, were estimated at \$15,000 for Tier 4 investigations and have been used in this assessment to represent worse case costs to facilities.⁸ Adjusted to 2021 dollars, the HRA costs are \$17,587 per assessment.⁹ Consultation with permitting staff found that Tier 3 and Tier 4 HRAs related to the current Rule 1401.1 requirements are rare. Based on previous Rule 1401.1 efforts, gas station applications were the most likely permitting actions that involved preparation of a Tier 4 HRA. A search of gas station permitting in the last five years found that only three Tier 4 HRAs occurred for 1401.1. As a result of Rule 1401.1, Staff assumes that the 10%, or nine facilities encompasses conservatively the number of Tier 3 and Tier 4 HRAs likely to occur in a given year. Assuming nine affected facilities per year requiring Tier 3 or 4 HRAs to demonstrate risk

⁷ Small Business Association (SBA) defines a small business for most industries as having fewer than 500 employees www.sba.gov.

⁸ HRA components are explained in more detail earlier in Chapter 3 in the Impact Assessment section. Lower tier HRAs (1&2) have less complexity and do not require dispersion modeling – the main source of potential costs in the HRA estimate is for Tier 3 and Tier 4.

⁹ Marshall & Swift Comparative Cost Indexes, January 2022.

thresholds pursuant to subdivision (e), the total annual compliance cost for PAR 1401.1 is estimated at about \$158,000 per year. Though it cannot be ascertained the exact number of new and relocated facilities submitting permit actions to South Coast AQMD, this estimate is based on the average for the last five years that would subject to the risk demonstration requirement and the expanded definition of school in PAR 1401.1.

Regional Macroeconomic Impacts

The total annual compliance cost is estimated to be \$158,000 for PAR 1401.1. It has been a standard practice for South Coast AQMD’s socioeconomic impact assessments that, when the annual compliance cost is less than or close to one million current U.S. dollars annually, the Regional Economic Models Inc. (REMI)’s Policy Insight Plus Model is not used to simulate jobs and macroeconomic impacts, as is the case here. This is because the resultant impacts would be too small relative to the baseline regional economy to reliably determine any impacts from the modeling analysis.

INCREMENTAL COST-EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis when there is more than one control option that would achieve the emission reduction objective of the proposed amendments relative to ozone, carbon monoxide (CO), sulfur oxide (SOx), nitrogen oxide (NOx), and their precursors. Since PAR 1401.1 applies to toxic air contaminants, the incremental cost-effectiveness analysis requirement does not apply.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

Necessity

A need exists to adopt PAR 1401.1 to minimize the exposure of pre-kindergarten children to toxic air contaminants and to help meet the South Coast AQMD Governing Board’s goals and objectives regarding cumulative impacts from toxic air contaminants.

Authority

The South Coast AQMD Governing Board has the authority to adopt PAR 1401.1 pursuant to the Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40001, 40440, 40441, 40506, 40702, 40725 through 40728, 41508, 41700, 42300, and 44391.

Clarity

PAR 1401.1 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PAR 1401.1 is in harmony with and not in conflict with, or contradictory to, existing statutes, court decisions, or state and federal regulations.

Non-Duplication

PAR 1401.1 will not impose the same requirements as any existing state or federal regulations. The rule is necessary and proper to execute the powers and duties granted to and imposed upon the South Coast AQMD.

Reference

By adopting PAR 1401.1, the South Coast AQMD Governing Board will be implementing, interpreting, or making specific the provisions of the Health and Safety Code Sections 39666 (new source review rules for toxics) and 41700 (nuisance).

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed rule requirements with any Federal or South Coast AQMD rules and regulations applicable to the same equipment or source category. There are no comparable federal rules or regulations regarding toxic air contaminants at new or relocated facilities near existing schools. In addition, Health and Safety Code Section 42301.6 and South Coast AQMD Rule 212 – Standards for Approving Permits and Issuing Public Notice require public notice for facilities locating near schools under certain circumstances. South Coast AQMD Rule 1402 establishes risk levels for existing facilities but does not apply to new sources. South Coast AQMD Rule 1401 applies to new sources, at an equipment level. It allows up to one in one million cancer risk for each new equipment at a facility and up to ten in one million if the equipment has T-BACT. Unlike PAR 1401.1, Rule 1401 has no facility-wide requirements and has no special provisions for facilities locating near schools. Therefore, there are no existing rules or regulations that specifically set facility-wide toxics emissions limits for new or relocated facilities near schools.

APPENDIX A – RESPONSE TO COMMENTS

PUBLIC COMMENTS AND RESPONSES

A Public Workshop was held for PAR 1401.1 on December 13, 2022. The following section is a summary of individual verbal comments, followed by South Coast AQMD staff responses.

Verbal Comments from Public Workshop

Comment 1: If an existing business or refinery located near sensitive receptors repurposes their equipment to be used for a different operation, will the facility trigger a PAR 1401.1 evaluation?

Response: No, Rule 1401.1 is an existing regulation that applies to an application for a permit to construct/operate or any permit unit that emits a Rule 1401 toxic air contaminant at a new or relocated facility near a school. PAR 1401.1 extends those protections to children at an early learning and development center. Subdivision (h) of existing Rule 1401.1 specifies that for any subsequent application at any new or relocated facility for new equipment or modification, alteration, and change of conditions of a permit to operate, regardless of whether it remains under the same ownership, would remain subject to Rule 1401.1 facility-wide cancer risk thresholds. Equipment at an existing facility being modified would be subject to a Rule 1401 evaluation, rather than a PAR 1401.1 evaluation. For the purposes of PAR 1401.1, an existing facility is defined as any facility that demonstrates that it had equipment requiring a Permit to Construct/Operate that was in operation prior to November 4, 2005 or has an application for Permit to Construct/Operate that is deemed complete prior to February 2, 2006.

Comment 2: If a facility relocated equipment within its own property, would this action be subject to PAR 1401.1?

Response: No, PAR 1401.1 applies to an application for a permit to construct/operate submitted by new and relocated facilities. If the described action is subject to the South Coast AQMD permitting process and the facility falls under the definition of new or relocated facilities, then Rule 1401.1 and the updated school definition under PAR 1401.1 could apply. For reference, a relocated facility is defined in Rule 1401.1 as the removal of all existing permitted equipment, remaining under the same ownership, from one parcel of land and installation of the same equipment or functionally identical replacement of the equipment at another parcel of land where the two parcels are not in actual physical contact and are not separated solely by a public roadway or other public right-of-way.

Comment 3: If a facility is located near an early learning or development center, would permits be subject to reevaluation under PAR 1401.1?

Response: No, Rule 1401.1 provisions are applicable to an application for a permit to construct/operate. There are no requirements for facilities that do not submit an application for a permit to construct/operate.

Written Comments

In addition to the public workshop verbal comments, staff received written comment letters specific to PAR 1401.1 during a comment period that closed on January 3, 2023. Copies of comment letters received and South Coast AQMD staff responses are provided in the following section.

Letters Received

1. California Department of Transportation (CALTRANS) (12/15/22)
2. Long Beach Unified School District (1/4/2023)

Comment Letter #1:

California Department of Transportation, submitted 12/15/22

From: Laurino, Daisy Loida S@DOT <daisy.laurino@dot.ca.gov>
Sent: Thursday, December 15, 2022 2:41 PM
To: Danielle Collado
Cc: Krewson, Kevin@DOT; Ng, Shaun S@DOT
Subject: Request information on the Proposed Rule 1401.1

Hi Danielle,

We were not able to attend the workshop and requesting if you can answer some of our questions.

The proposed rule amended the definition of schools and subdivision (i)(1)(B) exempts engines subject to Rule 1470 whose applicability is for stationary CI engine with a rated brake horsepower greater than 50.

1. Does this mean that diesel generators 50 bhp or less are subject to the Rule 1401.1? | 1-1
2. For example – if a diesel generator that is rated at 50 bhp used to provide back-up power to an equipment will be located less than 500 ft from a school will need to meet the requirements in Table 1? | 1-2
3. Or are generators greater than 50 bhp also are subject to this rule? | 1-3

Requesting your help.

Thanks

Daisy Laurino, PE
Senior Transportation Engineer
Air Quality and Noise
Office of Hazardous Waste, Air, Noise and Paleontology (HWANP)
Division of Environmental Analysis
Department of Transportation – District 43
Cell (916) 956-3589

Responses to Comment Letter #1

Response 1-1: Rule 1401.1 is an existing rule that applies to an application for a permit to construct/operate any permit unit that emits a Rule 1401 toxic air contaminant at a new or relocated facility near a school. Internal combustion engines with a manufacturer's rating of 50 brake horsepower or less are exempt from permits per South Coast AQMD Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II. Therefore, diesel generators 50 bhp or less are exempt from permits and are not subject to Rule 1401.1 or PAR 1401.1 provisions.

Response 1-2: See response to comment 1-1.

Response 1-3: Generators greater than 50 bhp are subject to South Coast AQMD permits and potentially could be subject to review under existing Rule 1401.1 and PAR 1401.1 provisions. It should be noted that subdivision (i) of existing Rule 1401.1 excludes emissions from emergency internal combustion engines that are exempted from modeling and offset requirements under Rule 1304 – Exemptions, and from engines subject to Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion Engines and Other Compression Ignition Engines from inclusion in the facility-wide cancer risk, facility-wide acute hazard index, and facility-wide chronic hazard index of Rule 1401.1.

Comment Letter #2:

Long Beach Unified School District – Facilities Development and Planning, submitted 1/4/2023



**Business Services Department
Facilities Development & Planning**
2425 Webster Avenue
Long Beach, CA 90810
Phone: (562) 997-7550
Fax: (562) 595-8644

January 3, 2023

VIA EMAIL

Danielle Collado, Assistant Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
DCollado@aqmd.gov

RE: Proposed Amendment to Rule 1401.1

Dear Ms. Collado:

The facilities staff at Long Beach Unified School District (“District”) attended the workshop held on December 13, 2022 regarding the Proposed Amendment to Rule 1401.01. The District submits this letter to notify the South Coast Air Quality Management District (“SCAQMD”) of its support to the proposed amendment.

As presented in the workshop, the proposed amendment includes a clarification that permit applications will be evaluated based on the Rule 1401.1 provisions (stricter than just 1401) in effect at the time the application is deemed complete. It also amends existing rule 1401.1’s definition of School to expand the scope to:

- Include early learning and development programs (e.g., pre-kindergarten center)
- Remove the exclusion of unimproved school property
- Established consistency between Rule 1401.1 and most other air toxic rules
- Corrects references to rule provisions in tables

The District supports the Proposed Amended Rule 1401.1 extending the definition of school to include children in early learning and development programs as well as the stricter requirements, of permit application evaluation of new or relocated Facilities near schools, based on the more health protective Rule 1401.1.

The District appreciates the opportunity to comment on the proposed amendment.

Please feel free to contact me at 562-997-7550 or DMiranda1@lbschools.net

Sincerely,

David Miranda
Executive Director

2-1

Response to Comment Letter #2

Response 2-1: Thank you for the participation in the public process and the support for PAR 1401.1.