CHAPTER 1
Air Quality

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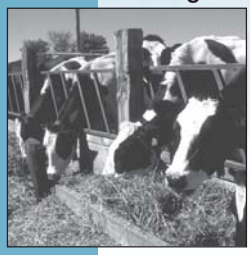

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CEQA & the Air We Breathe

By Mary Nichols and Gail Ruderman Feuer

California has the unfortunate distinction of having three of the ten smoggiest regions in the country within its borders. On top of that, many regions in California, including the San Joaquin and South Coast Air Basins, are plagued by unhealthful levels of tiny soot particles, or "particulate matter." Californians also face some of the highest cancer risks in the country from the air they breathe; 70 percent of this cancer risk comes solely from diesel exhaust.

While the federal Clean Air Act contains provisions designed to ensure that new industrial projects, such as a refinery or power plant, "offset" any projected increases in the emissions of the two chemical precursors to smog—volatile organic compounds (VOCs) and oxides of nitrogen (Nox)—as well as particulate matter, the Act does not protect against increases in emissions from other sources, such as housing and commercial developments, distribution centers, and port expansion projects. Thus, there are no provisions under the Federal Clean Air Act, or even the California Clean Air Act, to protect the public from the health hazards posed by an increase in emissions from additional vehicle traffic associated with a 10,000 unit housing development, the increased diesel truck traffic from a new "big box" warehouse or distribution center, or the increased pollution from the ships, trucks, trains, and equipment that will move containers at a new port shipping terminal.

These indirect sources of pollution are the products of a land-use planning and permitting system that relies on local governments, who have every incentive to compete with each other for new development, and few if any tools to analyze, much less mitigate the regional impacts. While local and state air agencies may comment on the impacts of the largest projects, they have no legal authority to prevent the local land use agency from issuing the necessary development permits.

Further, while the Federal and California Clean Air Acts control the levels of pollution that may be emitted by a particular source, these laws typically do not distinguish between sources based on their location; thus, a chrome-plating facility will typically face the same limits on its emissions regardless of whether it is sited next to an elementary school or industrial factory. This problem was highlighted in the late 1990's when children at Suva Elementary School in Bell Gardens in Los Angeles County experienced serious (and deadly) health impacts from high levels of toxic chemicals emitted by a chrome-plating facility sited next to the school. While the facility met all applicable air quality regulations, its emissions were unsafe for children spending the day immediately adjacent to the facility.

Only CEQA protects the public from the health hazards posed by the increased vehicular emissions associated with a new 10,000 unit housing development, warehouse distribution center, or port shipping terminal.

Only through the CEQA process can neighboring communities, citizen groups and concerned agencies affect the land use decisions that can make or break California's efforts to ensure that regions with air quality problems reduce their pollution levels to meet federal clean air standards. Indeed, without this protection, the dramatic growth projected for California will mean more, not less pollution over the upcoming decades. In Southern California alone, the Southern California Association of Governments projects that the region will experience a 25 percent increase in population over the next twenty years. This means ever increasing pressure for more housing, more commercial developments, and more warehouses and distribution centers. Similarly, California ports are currently projecting a doubling or tripling of container traffic through the ports over the next twenty years. These containers will be moved by diesel ships and cargo handling equipment, and carried to

their destinations by polluting trucks and trains.

CEQA addresses these pollution sources by requiring public agencies before they approve a project to analyze the impacts on air quality. Specifically, CEQA directs the agency to consider all adverse environmental changes resulting from the project, including on land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. If the agency finds substantial evidence that the project may have a significant impact on air quality, then an Environmental Impact Report must be prepared, which analyzes the impacts and mitigation measures that would reduce these impacts below a level of "significance."

Most regional air quality agencies in California have developed guidelines for when an air quality impact is considered significant. For example, in the Sacramento region, if a project's operation would increase emissions of VOCs or Nox by more than sixty-five pounds per day, these levels are considered significant. High emissions of cancer-causing or other toxic air contaminants can also render a project's emissions significant. For example, an increase in cancer risk of more than ten additional cancer cases out of 1 million people exposed is considered significant under guidelines adopted by the South Coast Air Quality Management District.

CEQA's teeth come from the obligation of the agency to mitigate all significant environmental impacts where "feasible." This is a central provision when it comes to air quality impacts because typically there are measures that can be implemented that are feasible and would reduce the project's environmental impacts. These "solutions" include mitigation of the project's traffic impacts (for example by structural changes to roads and intersections or the provision of public transit options) and adoption of control technologies to reduce emissions, such as requirements for the use of cleaner trucks and equipment and cleaner fuels.

CEQA's teeth come from the obligation of the agency to mitigate all significant environmental impacts where "feasible."

Moreover, CEQA requires consideration of more environmentally benign alternatives as well as the "no project" alternative. With respect to air quality, these alternatives can make a big difference. For example, a change in the design or size and intensity of a project can often dramatically impact the emissions from car and truck traffic associated with the project. Local permitting authorities often choose to make controversial projects more acceptable to surrounding neighborhoods by requiring measures to reduce traffic impacts. Without the analysis and disclosure required by CEQA, these officials would generally lack the knowledge of a project's impacts and the tools needed to devise feasible mitigation measures.

For many years, a parade of distinguished California business-leaders, planners, and environmentalists have recommended strengthening state planning laws in ways that would encourage what is typically called "Smart Growth." As early as 1982, the Governor's Office of Planning and Research produced an Urban Growth Strategy that called for regional plans that would discourage loss of open space and link transportation, air quality and other environmental and public health goals to "infill" development in urban centers. An effective growth management system would address many of the air quality burdens currently dealt with by CEQA on a project-by-project basis.

Until California enacts meaningful growth management legislation, however, CEQA remains the only effective tool for assuring that the hard-won gains in air quality that have been brought about by tough regulations on industry and motor vehicles are not wiped out by the unchecked sprawl of housing and commercial development serving our growing population.

Mary Nichols recently joined UCLA as Director of the Institute of the Environment. Prior to this, Ms. Nichols served as Secretary of Resources for the State of California, Assistant Administrator of the U.S. EPA under President Clinton, and Secretary for Environmental Affairs under former Gov. Edmund G. (Jerry) Brown.

Gail Ruderman Feuer is a senior attorney in the NRDC's Los Angeles office. Prior to this, Ms. Ruderman Feuer served as a deputy in the environment section of the California Attorney General's office. Ms. Ruderman Feuer has successfully litigated a broad range of environmental cases, and specializes in air quality, energy, transportation, toxics and California's Proposition 65.

Gordon Nipp, a recently retired math professor at Cal State Los Angeles, knew that he wanted to dedicate more time to the Kern-Kaweah Chapter of the Sierra Club. But it wasn't until he saw a stack of negative declarations for proposed housing developments that he decided to really get active and protect his community's air quality.

"They said there were no cumulative impacts to air quality, traffic, and biological resources from development, but of course there are. This is one of the most rapidly growing parts of the state, and there are profound impacts. So I took it upon myself to learn all I could about how to use CEQA to protect the community. A number of the developers were willing to work with us because they too realized the importance of clean air."

As a retiree, Gordon is especially concerned about the quality of the air he breathes. "If we're going to have a decent quality of life then something has to be done. People are getting sick from the air. They're developing emphysema and cardiovascular disease just from going outside. I live here. I have to breathe this stuff. It's an issue whose time has come."

Breathing Easier in Bakersfield:

Activists Use CEQA to Reduce the Air Impacts of Sprawl

"How do you tell your daughter that she can't go out and play because the air is too dirty?" **– Bakersfield resident and activist Renee Nelson**

Bakersfield, California would like to be known for its historic downtown and its lush agricultural setting. Unfortunately it has become increasingly identified with something much less appealing; Bakersfield's residents suffer from some of the worst air pollution in the United States.

According to a 2004 report by the American Lung Association, Bakersfield has the third highest levels of smog and particulate pollution in the country. A wealth of data confirms what local residents know; as the city grows, air quality gets worse. "Bakersfield is building 5,000 houses a year. That's a lot of houses when you think about local air quality," says recently retired Cal State professor and Sierra Club member Gordon Nipp.

The Brookings Institute found in a 2001 study that Bakersfield was the worst sprawling city in California. As the city grows, residents suffer from worsening levels of air pollution.

New developments spring up primarily at the edge of the city, meaning more commuting to get to downtown jobs. In fact, the number of vehicle miles traveled in Kern County has grown at twice the rate of population since 1981. Combine car travel, fireplaces, gas lawn mowers, construction emissions and a host of other pollutant sources, with the natural bowl shape of the local topography, which traps bad air in the city, and it's no surprise that residents endure an average of twenty-five "Save the Air" days per year.

While every new housing development contributes to worsening air quality, not every developer had to mitigate these impacts until the local chapter of the Sierra Club got involved. As Sierra Club member Harry Love explains, most new developments are between 50-300 homes. Because of their relatively small size, developers asserted that air quality impacts from their projects were insignificant, averting mitigation requirements. The Sierra Club used its right to litigate under CEQA to push the City and local developers to mitigate the impact of all new development on air quality.

When the city approves a project that fails to mitigate for its contribution to air pollution, the Club takes the city to court, asserting that the project must address cumulative impacts of air pollution. In nine consecutive cases developers have agreed to revise their projects and implement air quality mitigations, including landscaping with drought resistant plants, solar panels on model homes and a per unit air quality mitigation fee.

To determine the fee, Sierra Club member Gordon Nipp uses a computer program developed for the public by the California Air Resources Board called URBEMIS 2002 (Urban Emissions Model). URBEMIS is an on-line, user-friendly program that estimates air pollution emissions in pounds per day or tons per year for various land uses, construction projects, and project operations. By entering data about a proposed project, such as the estimated number of car trips per family and the construction schedule, Nipp can estimate the amount of air pollution generated by each additional unit of housing.

"It's in the best tradition of American justice that the ordinary citizen can have this sort of attention from the government and from the development community."

What does it currently cost for a housing development in Bakersfield to offset its impact on air quality? "$1,200 per unit," says Gordon Nipp. All the fees collected from the settlements will go to local air mitigation projects.

The Sierra Club doesn't want to continue using the courts to make sure developers respect Bakersfield's air, but until the city decides to address the cumulative impacts from small development projects, it will. And already, there are signs that the Club's legal actions are providing the needed impetus to help motivate the city to step in and provide more comprehensive leadership to protect air quality.

Before retiring as Bakersfield's Development Services Director in December of 2004, Jack Hardisty worked hard to draft a city-wide voluntary zero-emissions policy for new development. Although the plan was not adopted, it did signal the willingness of local government to listen to concerned community members and begin thinking creatively about the city's growth.

In early 2005, at the direction of a City Council committee, new Development Services Director Stan Grady convened an air quality task force to figure out how to improve air emissions to satisfy CEQA requirements. The task force consists of representatives from the City, the County, the Building Industry Association, developer's consultants, the Central Valley Air District, and the Sierra Club.

Gordon Nipp acknowledges CEQA's role in empowering the people and local government to clean up his city's air. "It's in the best tradition of American justice that the ordinary citizen can have this sort of attention from the government and from the development community. We're not wide-eyed radicals. We're asking for clean air."

Written by PCLF staff.

For more information on URBEMIS or to download a free copy see:
www.arb.ca.gov/planning/urbemis/urbemis2002/urbemis2002.htm

Bakersfield Air Quality Facts

The **American Lung Association's *State of the Air Report* (2004)** gave Bakersfield a **Failing** grade. It found that the city:

• Ranked **Third** in the nation for having the highest levels of short-term and year-long **particle pollution**. These tiny, airborne particles can lead to heart attacks, cardiac arrhythmias (irregular heartbeat), asthma, slowed lung function growth in children and teenagers, and premature death.

• Ranked **Third** in the nation for having the highest levels of **ozone pollution**. (The Regional Air Quality Board has updated Bakersfield's ozone status from **Severe** to **Extreme**.) Ozone attacks lung tissue and can cause pulmonary inflammation and asthma.

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The Brookings Institution found that Bakersfield was the **Worst-Sprawling City** in all of California, fourth in the entire nation (2001).

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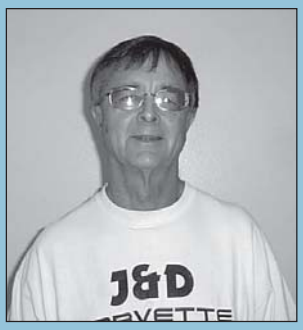
In 1999, 13,000 Bakersfield residents participated in **Vision 2020**, an unprecedented 18-month effort to draft a picture of the area's future. Their number one concern was **air pollution**. **Sprawl** ranked second.



Noel Park has lived in the town of San Pedro, adjacent to the Port of Los Angeles, for thirty-five years. He runs a car parts company and drives a pick-up truck. For most of his life he assumed that the Port was looking after the needs of the community. "It's the largest Port in the US, with giant ships, diesel trucks and hundreds of thousands of shipping containers. But I never got involved. I was interested in the same things everyone else is, my kids, my house, my cars."

That is, until his Homeowners' Coalition received a copy of the Port's Environmental Impact Report (EIR) for China Shipping. "I delved into the EIR and what I read there made me so angry I began attending hearings, testifying and writing letters along with other members of the Coalition. The document was dishonest and disingenuous, calling major impacts insignificant or making declarations of overriding considerations. They were in essence saying that the money they were going to make was

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CHINA SHIPPING & THE PORT OF LA

By Gail Ruderman Feuer

Despite the availability of technology to cut pollution, major seaports every year emit ever-larger amounts of toxic diesel exhaust and other contaminants that damage public health, disrupt local communities, and harm marine habitats. For example, the ports of Los Angeles and Long Beach are the single largest source of air pollution in Southern California, emitting as much diesel exhaust as 16,000 tractor-trailers idling their engines twenty-four hours a day. As a result, residents of San Pedro and Wilmington are plagued by acute and chronic respiratory illnesses, such as asthma and bronchitis, and suffer some of the highest cancer risk in the region.

In June 2001, after decades of expansion by the Ports of Los Angeles and Long Beach without mitigation of the environmental impacts, local community members joined forces with the Natural Resources Defense Council and Coalition for Clean Air to challenge the Port of L.A.'s approval of a 174-acre terminal expansion for the China Shipping Container Line. According to port documents, as many as 250 of the world's largest container vessels planned to call at the terminal, with cargo being moved by as many as 1 million trucks on local streets every year.

Joe Lyou, California Environmental Rights Alliance

Over 100 people gather to protest excessive air pollution at the Port of Los Angeles.

Despite the clear impact on the local communities, the port and city chose to rely on prior environmental documents prepared for other related projects, and refused to prepare an Environmental Impact Report (EIR) that would focus specifically on the impacts of this terminal expansion. None of the other environmental reviews revealed to the public the true impact the China Shipping project would have on its neighbors and the region nor did they provide any real mitigation for those impacts.

The groups filed suit under CEQA, challenging the failure to prepare an EIR. After an eighteen-month-long legal battle, in October 2002 the Court of Appeal permanently enjoined further construction and operation of the terminal until the port and city prepared a full environmental review in full compliance with CEQA.

The three-judge panel unanimously rejected arguments by the port and city that the project had been reviewed years ago in prior environmental documents, and held that these documents failed to address "any site-specific environmental issues related to the China Shipping project."

After the court decision halted all construction and operation of the project, the parties returned to the negotiating table to see if a settlement could be reached. Five months later, the parties reached an historic settlement that allowed the first almost completed wharf to open pending completion of the EIR, but in exchange provided dramatic mitigation of both the China Shipping project and impacts from prior projects that had never been mitigated.

Among other things, the settlement requires the Port to spend $50 million over the following four years on the reduction of air pollution and industrial blight in the bordering communities of San Pedro and Wilmington, and *in addition* to implement specific significant mitigation measures at the China Shipping terminal that will make it a "green" terminal. The other "green" measures include a requirement that 70 percent of the ships using the berths plug into electric power while at berth instead of running their diesel engines, 100 percent of the yard tractors run on cleaner alternative fuels like natural gas or propane, 100 percent of other yard equipment to install pollution controls and use cleaner diesel fuels, and installation on the second wharf of "low profile" cranes that are half the height of traditional cranes and thus will have less of an aesthetic impact on the local community.

A cargo ship plugs into the new electric power station at the Port of Los Angeles. Because of CEQA, China Shipping will be one of the first "green" terminals in the state and will include a number of other measures intended to minimize its negative impacts on nearby communities.

In June 2004, China Shipping's first vessel docked at the new terminal, and plugged into dockside power—the first container ship in the world to do so. Every time a ship plugs in to electric power at the terminal, this technology will mean three fewer tons of smog-forming nitrogen oxides and 350 fewer pounds of diesel particulate matter will be spewed into the air. Community and environmental leaders are hopeful that the China Shipping saga will lead to more complete environmental reviews of new port projects and "greener" terminals at the ports in the future.

Gail Ruderman Feuer is a senior attorney in the NRDC's Los Angeles office. Prior to this, Ms. Ruderman Feuer served as a deputy in the environment section of the California Attorney General's office. Ms. Ruderman Feuer has successfully litigated a broad range of environmental cases, and specializes in air quality, energy, transportation, toxics and California's Proposition 65. Ms. Ruderman Feuer is a graduate of Harvard Law School and former law clerk to federal Judge A. Wallace Tashima.

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more important than our health."

Noel questions the image of the Port as an engine of the economy. He cites a 2004 study by the non partisan Public Policy Institute of California, which claims that the Port may actually cost the state of California more each year in health costs from air pollution than it generates in jobs and economic activities.

The Coalition's success in challenging the EIR hinged on a single phone call. "One of our friends had read an article about the National Resources Defense Council so we contacted them and got their help. They were unbelievable. They deserve the real praise," says Noel.

"The Port spent nearly $10 million dollars trying to defeat us. It's hard to stand up to that sort of pressure. When the Attorney General's office filed a brief in support of our cause, it was a new supply of confidence."

Noel knows that the battle is not over. "This recent settlement covers about 5 percent of the Port. We've still got 95 percent that is going along with business as usual and fifteen EIRs in the cue. But I'm hopeful. We've woken up out of our thirty year slumber and we're finally taking a stand."

Teresa de Anda knows firsthand what it is like to not have clean air. A long time resident of the agricultural town of Earlimart in the San Joaquin Valley, she suffered severe health problems when a nearby vineyard accidentally released pesticides into the air near her home in 1999.

Teresa helped form El Comitè para el Bienestar de Earlimart to address such community health concerns. She now works for Californians for Pesticide Reform, advocating for breathable air in agricultural towns like her own.

One of Teresa's most rewarding experiences was organizing community support for SB 700 by Senator Florez. "We gathered a bus load of Central Valley residents and brought them to Sacramento. Many of them were children with asthma. From pesticide drift victims to families living by dairies, these residents understood that agriculture should not be exempted from clean air standards."

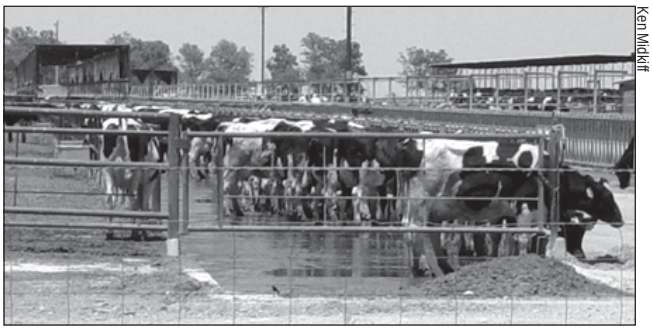
Teresa is motivated by the knowledge that her children's and grandchildren's health is at stake. "It's horrible being a mother and you can't even protect your kids," she explains. "It feels good to be doing something about it."

Mega-Dairies & Agricultural Air Pollution

By Caroline Farrell

In recent years, the Central Valley has seen an influx of dairies moving in from Southern California's Chino Basin. As stronger water and air regulations come into effect in the rapidly developing Chino area, dairymen are selling their farms to housing developers and buying large tracts of land farther north to relocate and expand their operations. Between 1998 and 2002, one such proposal stirred up a great deal of controversy in Bakersfield and helped lay the foundation for statewide change.

George and James Borba, two cousins with dairies in the Chino Valley, applied to build two 14,400 cow dairies on adjacent pieces of property in Kern County, in effect creating a 28,000 cow dairy. The County quickly approved these proposals without CEQA review, stating that there would be no potential adverse environmental impact from these dairies. Fearing that unregulated dairies of this size could have far-reaching environmental consequences, the Center on Race, Poverty & the Environment (CRPE) challenged the County's avoidance of an environmental analysis. When the initial analysis failed to adequately analyze the dairies, the Sierra Club joined with CRPE in another suit against the County.



Ken Midkiff

California's largest dairies hold 14,000 cows at a single site. The CEQA review of the Borba proposals revealed the impacts of these "mega-dairies" on California's air quality.

After a protracted legal battle in which the courts ruled three times in favor of the environmental organizations, a new Environmental Impact Report (EIR) and supplemental analyses for the Borba dairies were finally prepared. These documents painted a radically different picture of dairy farming, demonstrating that dairies do have significant and unavoidable impacts on the environment, particularly on the air. The findings surprised everyone. "We thought that the greatest impacts would be on water quality from the animal waste-laden runoff. Although there was clear evidence that manure wastewater could seep into the ground, eventually contaminating groundwater supplies, it turns out that the greatest impact was on air quality from reactive organic gases, particulate matter, ammonia, hydrogen sulfide, and methane" explains Brent Newell, staff attorney for CRPE.

Growing data on emissions from San Joaquin dairies called into question California's exemption of agriculture from the Clean Air Act.

Based on the information disclosed during the Borba permit process, the effects of dairies began to gain local and statewide attention. Local papers, including the Bakersfield-Californian and the Fresno Bee, began publishing editorials critical of dairies practices.

Kern County agreed to re-examine its "by right" policy for dairies, which allowed the county to grant permits without any public hearing or additional operating conditions if the proposed dairy met certain basic siting requirements. In addition, Kern County and neighboring counties in the air basin realized that they needed to prepare an EIR for each new dairy or adopt a program EIR for all dairies. While these new EIR requirements helped stem the tide of unregulated "mega-dairies," even larger improvements lay ahead.

The accumulating data on emissions from San Joaquin Valley dairies called into question California's exemption of agriculture from the Clean Air Act. Up until 2003, nearly all air pollution caused by agricultural practices in California, including diesel irrigation pumps and livestock facilities, escaped the oversight common to other industries. Because of the growing concerns

Were it not for the information generated in the Borba Dairy CEQA cases and the public outcry that followed, California's agricultural industry might still be exempt from the Clean Air Act.

of valley residents and the Federal Environmental Protection Agency, Senator Dean Florez sponsored SB 700 in September of 2003. The passage of SB 700 removed the agricultural exemption from air quality laws and instituted substantive permitting requirements for agricultural pollution sources. Were it not for the information generated in the Borba Dairies cases and the public outcry that followed, this historic improvement to air quality and public health in the Central Valley may never have occurred.

Caroline Farrell is the directing attorney of the Delano Office for the Center on Race, Poverty, & the Environment (CPRE). CRPE continues to work with Central Valley communities for regulation of the dairy industry.

Agriculture & Air Quality

The primary sources of air pollution from agricultural practices are manure from confined animal facilities and exhaust from diesel equipment.

A November 2004 report by the California Senate Office of Research found that large dairy operations and their wastes pose an immediate threat to air quality, emitting large quantities of toxic and greenhouse gases, including reactive organic compounds, particulate matter, ammonia, hydrogen sulfide, and methane.

California's largest dairies hold 14,000 cows at a single site. Toxic airborne chemicals emitted from lagoons of manure at these sites can cause inflammatory, immune, and neurochemical problems in humans.

Of the nearly 200,000 pieces of agricultural equipment currently in operation in California, more than half are so old that no emission standards existed at the time the equipment was purchased.

Agricultural equipment is the fourth largest source of diesel particulate pollution in the state. Diesel particulate has been linked to low birth weight, sudden infant death syndrome, and other health problems.

Elimination of manure lagoons and the application of stricter diesel emission standards could prevent thousands of asthma attacks and premature deaths each year.

The Trouble with BUGs

Though diesel backup generators (BUGs) produce up to 100 times more pollution than conventional power plants, they are often clustered near where people live, work, and go to school.

A person's lifetime cancer risk increases by 50 percent if he or she lives near a single one-megawatt diesel generator that runs for as little as 250 hours annually.

Diesel exhaust is responsible for more than 70 percent of the air toxin cancer risk in the US, ten times higher than all other pollutants combined.

Diesel exhaust also has numerous serious noncancer effects—involving the respiratory, neurological and immunological systems—and contains smog precursors.

Fine particles in diesel exhaust have been linked to asthma, cardiovascular and respiratory problems, strokes, and heart attacks.

Diesel BUGs are far more likely to be located near low income, elderly, and minority populations.

A study of four CA school districts (South Coast, San Diego, San Joaquin Valley Unified, and Sacramento Metro) estimates that more than 150,000 children in these regions may be exposed to unacceptably high diesel BUG emissions.

Diesel Generator
Next to Sacramento School

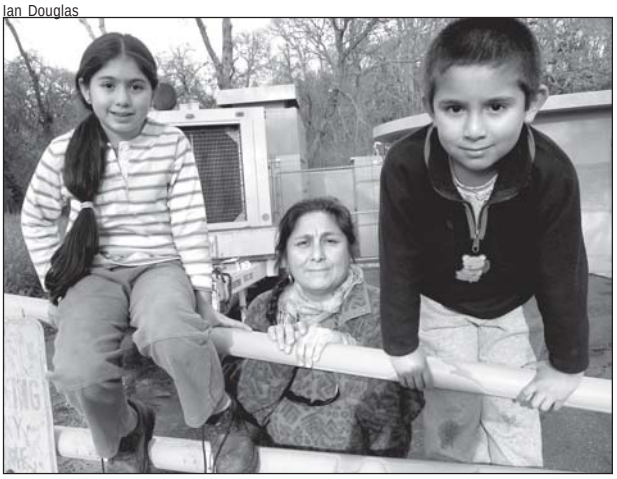
By Daniel L. Cardozo

Diesel exhaust from backup diesel generators is a leading threat to public health. This is because diesel exhaust is a potent human carcinogen, and because backup diesel engines usually have absolutely no pollution control equipment. In addition, backup diesel engines are often located very close to where people live, work or attend school.

In late 2003, the Sacramento County Department of Water Quality ("Department") applied to the Sacramento Metropolitan Air Quality Management District for a permit to operate a backup diesel generator 150 feet from the Sacramento Waldorf School, a K-12 school with 420 students and 50 toddlers enrolled in pre-school. The generator was a two-cycle, turbocharged, diesel powered internal combustion engine.

The Department had actually been operating the engine illegally, without a permit, since November 1999. This was a violation of both the Federal and State Clean Air Acts. The public notice of the permit action raised community awareness of the diesel generator, which was of significant public concern, especially among parents of children at the Waldorf School.

Ian Douglas



Ana Sánchez-Camacho, her son, Awki, and daughter, Kukuli, pose in front of a diesel generator located 150 feet from the Sacramento Waldorf School. Through their CEQA comments, Ana and other concerned parents ensured that the most advanced emissions reduction technology available was installed and that the equipment would be routinely cleaned and maintained.

Parents of children at the Waldorf School organized the Concerned Parents of Waldorf Children and sought out legal assistance to help them understand the environmental risks posed by the diesel engine.

The California Air Resources Board (CARB) has concluded that stationary backup diesel engines pose one of the greatest threats to human health of any common source of pollution. (*See* CARB fact sheet "California's Plan to Reduce Diesel Particulate Matter Emissions" Oct. 2000).

Expert analysis indicated that the emissions from the diesel engine created a cancer risk comparable to some of the largest pollution sources in Northern California, including several of the Bay Area refineries. For example, the largest pollution source in the Sacramento Metropolitan Air Quality Management District database creates a cancer risk of 9 per million, and the cancer risk posed by Bay Area refineries ranges from 6 to 9 per million. The diesel engine that the Department was operating next to the Sacramento Waldorf School created a cancer risk of between 5.6 and 16.7 per million.

The California Air Resources Board has concluded that stationary backup diesel engines pose one of the greatest threats to human health of any common source of pollution.

The Parents and the Coalition for Clean Air filed comments urging CEQA review of the permitting decision and requesting installation of "best available control technology" (BACT) under the Federal Clean Air Act.

The CEQA process provided a forum for the provision of extensive expert comments analyzing the project's risks and proposing mitigation measures. Ultimately, the Department agreed to install advanced pollution control equipment called a "BUGtrap" in order to make the backup generator safer for the schoolchildren who would be exposed to diesel fumes.

The BUGtrap is capable of achieving a minimum reduction in emissions of 75 percent for particulate matter; 85 percent for hydrocarbons; and 85 percent for carbon monoxide. The manufacturer of this technology, Cleaire Advanced Emission Controls, donated the pollution control equipment.

The Department also agreed to conduct all routine maintenance and testing during non-school hours to avoid exposing children even to the controlled emissions of the diesel engine.

This agreement was based on the requirement under CEQA that the project proponents implement "all feasible mitigation measures." In this case, this requirement proved stronger than requirements of the Clean Air Act because the Air District would have been able to argue that the BUGtrap was beyond best available control technology required by the Clean Air Act.

BACT is defined by U.S. EPA and various air districts, and does not yet include the BUGtrap, since it is a very new and advanced technology for back-up diesel generators. However, the technology meets CEQA's "feasible mitigation measures standard" because it is currently available, has been used in practice on hundreds of diesel engines, and is cost-effective.

Daniel L. Cardozo is a partner at Adams Broadwell Joseph & Cardozo. Mr. Cardozo's firm provided pro bono representation to the Waldorf School Parents.


Ian Douglas

Ana Sánchez-Camacho, a mother with a six-year-old son and a nine-year-old daughter at the Sacramento Waldorf School, was one of the main organizers of Waldorf parents. "We didn't know that there was a functioning diesel generator sixty feet from where our children were playing in the kindergarten yard."

Many parents were shocked. "I think they expected the school and the county to be vigilant in taking care of their health and safety. Soon a large number of parents became concerned and got engaged."

"Our first major hurdle was that the Air Quality Management District didn't have a venue to receive comments from concerned citizens. They said we had to pay a $1,000 fee. Finally, our lawyers helped us get the fee waived. Their expertise and knowledge of the process was essential to us."

Ana considers the installation of new pollution control technology to be a victory for the school. She hopes that other communities near diesel generators will learn from this example and use CEQA to demand the best available technology to protect their health.

CEQA Cleans Up California's POWER PLANTS

By Marc Joseph

Modern power plants are less damaging to the environment than older plants, but they still create numerous environmental impacts that can and should be avoided. To centralize efforts to protect Californians against the ongoing effects of pollution from power generating facilities, the state legislature established the California Energy Commission, a regulatory body that oversees permitting for all new power plants with generating capacity of at least fifty megawatts.

As the CEQA lead agency, the California Energy Commission (CEC) is responsible for evaluating all of the environmental impacts of a proposed power plant or plant expansion, from the construction stages to the daily operation and eventual plant retirement. The CEC's process invites community members and organizations such as California Unions for Reliable Energy (CURE) to help identify potential impacts and suggest necessary improvements. Air quality is often the largest area of concern.

The authority derived from CEQA enables the CEC to require mitigation for significant air quality impacts of construction, including dust from earthmoving and exhaust from construction equipment. For example, the CEC now routinely requires extensive watering to reduce PM10 emissions during construction and the use of ultra-low sulfur diesel and soot filters on construction equipment. These measures greatly reduce the impacts to air quality from the construction process itself, and there is usually no authority other than CEQA to limit these impacts.

The CEC can also ensure that stack emissions, which almost always present significant adverse impacts on the physical and human environment, are mitigated. Some of these air quality impacts often would not be addressed by any other regulations. For example, in cases where power plants fully comply with the requirements of the local air district, there are still chances that the plants will generate air pollution in neighborhoods outside of that specific air district. Yet because of the CEQA process, the Energy Commission can require the project proponents to pay for emissions offsets near the pollution source and near affected populations. This process helps to protect local communities from impacts that the air district may be unable to prevent.

When Midway Power proposed the Tesla Power Plant, CEQA protected air quality downwind in the Valley when no other regulatory process was available.

For example, when Midway Power LLC, proposed the Tesla Power Plant just inside the boundaries of the Bay Area Air Quality Management District, that Air District only specified that required offsets for the power plant had to be within the

Bay Area. CEQA analysis showed that emissions would primarily impact downwind communities in San Joaquin County, part of the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD). Because of its authority under CEQA, the CEC required that offsets be implemented in the affected areas outside of the local air district's jurisdiction. CEQA protected air quality in the Valley when no other regulatory process was available.

CEQA also allows the CEC to protect fresh water supplies and the marine environment. Power plants can require large amounts of water for cooling. This can deplete fresh water supplies and lower groundwater levels, which directly affects other water users such as nearby agricultural operations. Using its authority under CEQA, the Energy Commission has started to require power plants to utilize reclaimed water and sometimes a dry air cooling process, rather than the normal fresh water cooling process. In the case of the Three Mountain Power Plant, the CEC included CURE's request for a better cooling process design that reduced the plant's groundwater consumption by 80 percent. The CEC also sometimes requires plants to use "zero discharge" cooling systems that both minimize water use and prevent discharge of pollution into surface water supplies. Through the examination of cooling policies, the CEC has lessened the impacts on coastal wetlands and fisheries caused by the traditional "once through" cooling process design.

CEQA also empowers the CEC to address the risks that toxic and hazardous materials pose to the environment and to worker health and safety. Such was the case at the High Desert Power Plant, where CEC required that the plant use less hazardous aqueous ammonia to avoid the dangers of highly concentrated anhydrous ammonia. This protected the public and workers from the risk of an accidental release of deadly concentrations of ammonia. Again, the only authority for the CEC's requirement was CEQA.

From mandatory local air quality offsets to increased protection from toxic chemicals, none of these essential improvements would be possible without the tools provided by CEQA.

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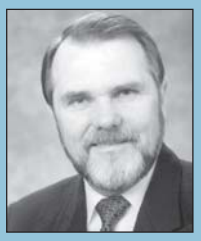
Marc Joseph is a partner at Adams Broadwell Joseph & Cardozo. Mr. Joseph's firm represents California Unions for Reliable Energy (CURE).



CEQA & the Building Trades

By Bob Balgenorth

The Building Trades have seen what happens when environmental issues are not addressed. During the late eighties, air quality was so bad in parts of the state that there was a moratorium on large construction projects. The Clean Air Act requires withholding funds for highway projects if clean air standards are not met. Some communities have reacted to environmental problems by prohibiting new development. Construction workers lose jobs when the environment is not protected. CEQA is one of the main tools for achieving sustainable growth in California. By mitigating the effects of projects, CEQA protects the opportunity for sustainable growth.

Also, emissions from construction are a direct danger to the health of construction workers. These emissions are not normally regulated by air districts. CEQA is often the only protection for construction workers and nearby residents. By requiring that the impacts be mitigated, the health of construction workers, the people most at risk, is protected.

Robert Balgenorth is president of the State Building and Construction Trades Council of California, AFL-CIO. The Council, representing more than 200 local unions and regional councils, works to improve the economic condition, health, and job safety of approximately 400,000 working men and women in the state's construction industry.

Doreen Caetano-Jungk is getting ready for another GRAPE (Goshen Residents Against Polluting the Environment) meeting in her living room. "Goshen is a primarily low-income community," she explains. "We don't have the money to mail a newsletter. We walk from door to door instead."

CEQA first entered Doreen's vocabulary when she attended a public hearing for a proposed slaughterhouse at the edge of town. After the hearing, she and other residents gathered to discuss their concerns. When those same residents met with Caroline Farrell from the Center on Race, Poverty and the Environment, they decided to form GRAPE and have been actively researching and speaking out on topics of concern since then.

Soon after the County approved the slaughter house, Doreen's husband Ron told her about the proposed ethanol plants. Ron's union had just hired a Berkeley professor to write expert comments on the proposed Pixley ethanol plant, thirty miles south of Goshen.

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Building Better Ethanol Plants

By Caroline Farrell and Richard Drury

In early 2004, several companies proposed the construction of ethanol plants in the Central Valley. All of the plants were designed to produce ethanol from corn distillation to be used as a gasoline additive. Ethanol makes gasoline burn more cleanly and also replaces toxic MTBE, which has been banned due to groundwater contamination problems. A good product in many respects, the production of ethanol does, however, create emissions of its own.

While there are currently no operating ethanol plants in California, many mid-western ethanol plants have been identified as major sources of air pollution and odors. For example, many ethanol plants built in the Midwest prior to 2000 had exceeded their air permits by hundreds of tons, and

Ronny Jungk

Construction continues on the Western Milling ethanol plant in Goshen, CA. The Pixely plant will be built just thirty miles south.

nearby residents brought numerous nuisance suits because of odors from the plants. The United States Environmental Protection Agency sued several of the plants under the Clean Air Act to force them to install best available control technology (BACT).

Tulare County prepared Negative Declarations for two new ethanol plants in the summer of 2004. A "Negative Declaration" is a written statement briefly describing the reasons that a proposed project will not have a

significant effect on the environment and does not require the preparation of an Environmental Impact Report (EIR).

This prompted attorneys representing Goshen residents and a consortium of unions to file extensive legal and technical CEQA comments challenging the appropriateness of the Negative Declaration.

The commenters provided extensive expert comments on the environmental impacts of the ethanol plants and proposed feasible measures to reduce those impacts. After receiving the comments and holding several public hearings, the County urged the proponents of the plants and the commenters to attempt to resolve the environmental issues raised in the hearings and comment letters.

Ronny Jungk

In the CEQA settlement agreement, the plant owners agreed that if VOCs are found to exceed two pounds per day the plant will install best available control technology to reduce emissions below that level.

Ultimately, the parties reached an agreement that resulted in numerous mitigation measures to reduce project impacts. Of particular importance, the plants agreed to retain an independent consultant to monitor volatile organic compounds (VOCs) from the wet mash or wetcake produced at the plants. If volatile organic compounds are found to exceed two pounds per day, the companies agreed to install best available control technology to reduce emissions below that level. No emission factor currently exists for these emissions and they would have gone unanalyzed and unmitigated under the County's Negative Declaration.

The companies also agreed to implement measures to reduce particulate matter emissions during project construction. Because of CEQA, the plants were allowed to proceed, while addressing their impacts on local air quality.

Caroline Farrell is an attorney with the Center on Race, Poverty and the Environment. Ms. Farrell represented GRAPE and other Central Valley residents in their challenge to the Goshen ethanol plant.

Richard Drury is an attorney with Adams Broadwell Joseph & Cardozo. Mr. Drury represented Plumbers and Pipefitters Local 246 and the International Brotherhood of Electrical Workers Local 100 in their challenge to the Pixley ethanol plant.

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When the ethanol plant proposal for Goshen came before the county, she helped organize GRAPE members, met with county officials, attended public meetings, and prepared comment letters.

Doreen found that her degrees in Special Education and Agricultural Sciences paid off when trying to decipher the Environmental Impact Reports.

"What really amazed me though, was that when I showed the planning staff exactly where the problems were in their environmental documents they thanked me and submitted the same documents to the county without any changes. I had to keep attending public meetings to make sure the agencies finally followed through. Did they expect me not to keep showing up?"

Several public agencies claimed they weren't responsible. "We had to work hard to ensure accountability. We told them in essence, the buck does stop here. It stops here with you."

The CEQA process opened Doreen's eyes to the role of the public in civic life. "I'll never be able to just sit in my yard and garden and not be concerned anymore. I was naively thinking that the government would be balancing all the issues. Now I know someone needs to be watching to see that those issues are taken care of."

Reducing Construction and Mobile Source Emissions

By Tanya A. Gulesserian

CEQA has provided the only mechanism to control construction and mobile source emissions in California. Construction sites expose workers, nearby residents, and children to elevated concentrations of dust and diesel exhaust. Mobile sources, including vehicular traffic, street sweeping, garbage pick-up and landscape maintenance, increase emissions after a project is built, affecting air quality and public health in the local community.

These emissions are a serious public health concern. Inhalation of particulate matter has been linked to a range of serious health problems including an increase in respiratory symptoms and disease, lung damage, cancer, and premature death. These health impacts are particularly adverse for the most vulnerable segments of our population: the elderly, children, and people with respiratory illnesses.

The CEQA process has been extremely effective in minimizing air quality and public health impacts from construction and mobile source emissions associated with residential, commercial, and industrial projects. For example, in 2003, the City of Richmond issued a Mitigated Negative Declaration (MND) under CEQA to analyze a residential project proposing several hundred homes. A coalition of labor unions and their members reviewed the MND, submitted extensive comments on the project and proposed additional mitigation measures to reduce the project's impacts.

CEQA has provided the only mechanism to control construction and mobile source emissions in California.

Mobile sources, including vehicular traffic, street sweeping, garbage pick-up and landscape maintenance, increase emissions after a project is built, affecting air quality and public health in the local community.

Expert analysis indicated that the project would cause significant adverse public health impacts from increased dust and diesel exhaust emissions. These emissions would increase the cancer risk in the surrounding community, including a nearby school. The project would also expose workers and residents to hazards associated with adjacent railroad tracks and industrial facilities. Feasible mitigation measures were proposed to reduce these impacts.

Based on information disclosed during the CEQA process, the developer, the City, and the unions reached an agreement to implement numerous additional measures to reduce the project's impacts. The developer agreed to use ultra-low sulfur diesel fuel in all construction equipment to reduce emissions during construction. The developer also agreed to apply water or dust palliatives and install gravel pads to minimize dust on and off the construction site. The agreement also required the developer to install high-efficiency particulate air filters on all residences in the project to improve indoor air quality. To reduce emissions from operation of the project, the developer agreed to install EPA-certified fireplace inserts and to require landscape companies to use electric-powered equipment. As a result of the CEQA process, the project will provide much needed housing, while minimizing air quality and public health impacts on the local community.

The CEQA process has also been effective in minimizing air quality and public health impacts associated with construction and operation of industrial projects. In 1997, the Port of Oakland proposed to expand its facilities to meet the anticipated demand for transportation services in northern California and to serve markets across the U.S. However, expansion of the Port facilities would increase construction and mobile source emissions in the already polluted Oakland area due to increased ship, rail, and truck traffic.

Construction sites expose workers, nearby residents, and children to elevated concentrations of dust and diesel exhaust.

The Port and the U.S. Navy issued a Draft Environmental Impact Statement / Environmental Impact Report (DEIS/EIR) to analyze the project. Oakland area neighbors, represented by Alan Ramo at the Golden Gate Environmental Justice Law Clinic, submitted comments on the DEIS/EIR. However, the Port approved the program without major changes, and the case ended up in court. Ultimately, the Port and community members reached a settlement in which the Port agreed to fund the hiring of an expert and to analyze specific air quality issues in future environmental review of specific projects under the program.

In 1998, the Port issued a DEIR under CEQA for construction of four berths planned in the expansion. Expert analysis indicated that construction of the berths and increased truck and cargo traffic would result in adverse public health impacts in the surrounding community. After extensive negotiations, Oakland area neighbors and the Port reached an agreement to implement additional measures to reduce the air quality and public health impacts from the project.

The Port agreed to use low-sulfur diesel fuel to reduce diesel exhaust emissions from construction equipment. The Port also agreed to commit over $6.5 million dollars to subsidize retrofit of diesel truck engines, cargo-handling equipment, and a tugboat with new engines meeting higher emission standards, or to add-on exhaust treatment devices to reduce particulate matter and toxic emissions. In addition to mitigating a variety of other operational features of Port facilities, the agreement included a commitment to subsidize retrofit of diesel engines on some transit buses that operate in West Oakland in order to reduce cumulative impacts from increased development in the area. For air quality mitigation measures for which the Port did not have the authority to require implementation, the Port allocated $7.5 million to encourage voluntary action through financial subsidies and similar incentives. As a result of the CEQA process, the Port of Oakland will meet increasing demands for transportation services, while minimizing air quality and public health impacts on the local community.

As these examples demonstrate, the CEQA process has been an invaluable tool for controlling construction and mobile source emissions and minimizing air pollution and public health impacts in California.

Because of CEQA, the Port of Oakland will meet increasing demands for transportation services, while minimizing air quality and public health impacts on the local community.

Tanya A. Gulesserian is an attorney at Adams Broadwell Joseph & Cardozo. The firm represented construction unions in the City of Richmond example discussed in this article.