ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037
TEL: (650) 589-1660
FAX: (650) 589-5062
LdCastillo@adamsbroadwell.com

DANIEL L. CARDOZO
CHRISTINA M. CARO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
KYLE C. JONES
MARC D. JOSEPH
RACHAEL E. KOSS
NIRIT LOTAN
MILES F. MAURINO
COLLIN S. McCARTHY

LAURA DEL CASTILLO
Of Counsel

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

December 18, 2018

Via Email

Mayor Sam Liccardo and Council Members
Council Chambers
200 East Santa Clara Street
San José, California
mayoremail@sanjoseca.gov
District1@sanjoseca.gov
District2@sanjoseca.gov
District3@sanjoseca.gov
District4@sanjoseca.gov
District5@sanjoseca.gov
district6@sanjoseca.gov
District7@sanjoseca.gov
district8@sanjoseca.gov
District9@sanjoseca.gov
District10@sanjoseca.gov

AGENDA ITEM: 10.1(a)

CC: Reema Mahamood, reema.mahamood@sanjoseca.gov
Robert Rivera, robert.rivera@sanjoseca.gov

Re: Letter to City Council re GP17-017 - General Plan Amendment: Land Use/Transportation Diagram for Property Located at 214, 214D, 205 Dupont Street; 226 and 275 McEvoy Street

Dear Honorable Mayor Liccardo and Council Members:

On behalf of San Jose Residents for Responsible Development, we submit this letter regarding the GP17-017 General Plan Amendment ("Project"). Specifically, we provide comments on the Initial Study/Addendum ("Addendum") to the Diridon Station Area Plan ("DSAP") Final Environmental Impact Report prepared by the City of San Jose ("City") for the Project, pursuant to the California Environmental Quality Act ("CEQA"). We also provide responses to the December 4, 2018 Planning Commission Supplemental Staff Report and the December 7, 2018 Memorandum to City Council. We are providing these comments in advance of the December 17, 2018 City Council hearing on this Project.

4425-003j

The 4.25-acre Project site is comprised of five non-contiguous parcels located on Dupont Street and McEvoy Street, between West San Carlos Street and Park Avenue, in the Diridon Station Area of the City. The Project proposes to change the General Plan land use designation on all five parcels to Transit Residential ("TR") through a General Plan Amendment ("GPA").[1] The TR designation allows a residential density of 50 to 250 dwelling units/acre ("DU/AC") with a floor area ratio of 2.0 to 12.0 and buildings ranging from 5 to 25 stories. This change could result in a future development of 170 to 850 residential units.

We previously submitted written comments on this Project on November 7, in advance of the Planning Commission hearing. The hearing was postponed until December 5, when we provided oral comments to the Commission. The Supplemental Staff Report for the Planning Commission hearing included responses to our November 7 comments. In addition, a Memorandum to the City Council dated December 7 contains further limited responses. However, those responses fail to address or diminish our comments.

As our previous comments and this letter demonstrate, the Addendum fails to comply with the requirements of CEQA and may not be used as the basis for approving the Project. It overwhelmingly fails to perform its function as an informational document that should provide public agencies and the public with detailed information about the effect that a proposed project is likely to have on the environment.

As an initial matter, the City disclosed conflicting information about the size and thus maximum development capacity of the Project site. As a result, the City failed to analyze reasonable foreseeable development on the 4.25-acre Project site.

In addition, the Addendum improperly piecemeals review of development on the Project site. Moreover, substantial evidence shows that there will be significant effects from development on this site under the proposed GPA that the Addendum and previous DSAP FEIR failed to address, thereby triggering the necessity for an EIR under CEQA.[2] Specifically, the Addendum fails to adequately identify, evaluate, and mitigate significant effects due to hazardous site conditions.

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[11] Initial Study/Addendum, Dupont General Plan Amendment File No. GP17-017, October 2018 (hereinafter "Addendum").
[2] 14 CCR, § 15162(a)(3).

Furthermore, the Addendum fails to provide any site-specific analysis whatsoever of health risks during construction and operation, energy use, and noise impacts.

The Addendum must be withdrawn, and the City must address these errors and deficiencies. Because of the substantial omissions in the Addendum, and because of the significant effects associated with the Project, the City must prepare an EIR and circulate the EIR for public comment.

We prepared this letter with the assistance of hazards expert James J.J. Clark of Clark & Associates.[3] Mr. Clark's comments are attached to this letter. We hereby incorporate by reference our previous comments and attachments dated November 7, 2018.

I. INTEREST OF THE COMMENTERS

San Jose Residents for Responsible Development ("San Jose Residents") is an unincorporated association of individuals and labor unions that may be adversely affected by the potential public and worker health and safety hazards, and environmental and public service impacts of the Project. The association includes local residents Kristopher Ugrin and Juan Gutierrez, as well as International Brotherhood of Electrical Workers Local 332, Plumbers & Steamfitters Local 393, Sheet Metal Workers Local 104 and Sprinkler Fitters Local 483, their members, their families and other individuals that live and/or work in the City of San Jose and Santa Clara County.

Individual members of San Jose Residents and the affiliated unions live, work, recreate and raise their families in the City of San Jose and Santa Clara County. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite. San Jose Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more

[3] *See* Letter from James J.J. Clark, Clark & Associates, to Laura del Castillo re: Comment Letter on Supplemental Analysis By City of San Jose On Dupont Street General Plan Addendum Mixed-Use Initial Study/Addendum File No. GP17-017, December 16, 2018 (hereinafter, "Clark Comments"), **Attachment A**.

difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Finally, San Jose Residents' members are concerned about projects that present environmental and land use impacts without providing countervailing economic and community benefits.

II. THE CITY DISCLOSED CONFLICTING INFORMATION ABOUT THE SITE ACREAGE AND THUS THE ALLOWABLE DEVELOPMENT CAPACITY OF THE SITE

The Project website states that the Project site is 4.25 gross acres but also confusingly states that it is also 3.4 acres.[4] Presumably, the 3.4 acre number is how the City calculated 850 units as the maximum development allowed at 250 DU/AC under the GPA to Transit Residential. However, the Addendum repeatedly states that the site is a 4.25 gross acre site. If the 4.25 number were applied to the change in land use designation, then the maximum development would not be 850 units; instead, it would be up to 1,062 units. Also, with a FAR of up to 12.0, the GPA allows well as over 2 million square feet of potential commercial space that was never analyzed by the City.

Furthermore, the City disclosed conflicting information about whether the "higher end" of maximum development is achievable. In the October 29, 2018 Planning Commission Staff Report, the City states that "given the Federal Aviation Administration approach zone height limits and close proximity to rail, a development would not likely be able to achieve the higher end of this density range."[5] However, the Addendum repeatedly states that "[w]hile the ultimate size of a future development proposal on the project site is unknown, it is reasonable to assume that development would occur at the higher end of the allowable development range."[6] The City must provide clear and accurate information about the potential development on this site; as proposed, it fails as an informational document under CEQA.

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[4] San Jose, Dupont Street General Plan Amendment, http://www.sanjoseca.gov/index.aspx?NID=6233.
[5] Planning Commission Staff Report, October 29, 2018, p. 2.
[6] Addendum, p. 19, 20.

III. THE CITY'S RESPONSE IN THE SUPPLEMENTAL PLANNING COMMISSION STAFF REPORT AND PLANNING COMMISSION MEMORANDUM FAILS TO ADEQUATELY ADDRESS OUR COMMENTS

The City provided responses to our November 7 comments in a Supplemental Staff Report released on December 4, ahead of the December 5 Planning Commission hearing on the Project. The City further provided a Memorandum from the Planning Commission to the City Council regarding our oral comments at the December 5 hearing. Those responses are flawed and fail to adequately address our comments.

A. The City is Piecemealing Environmental Review of the Project

In our previous comments, we explained that CEQA and related case law in California have rejected the City's approach of deferring analysis of reasonably foreseeable significant environmental impacts from the GPA. Indeed, the site had already been associated with a specific development project prior to the filing of the GPA application; the development project was proposed by the same Applicant identified in the Addendum as the applicant for the GPA. Based on the information we provided in our comments, it is likely the Applicant intends to reapply for a permit for the same or similar development after the GPA is considered. This is precisely the kind of decoupling and piecemealing that CEQA prohibits.

The City's response that there may be additional environmental review associated with a future development project is insufficient to remedy the City's failure to analyze site-specific impacts now, as required by CEQA. Moreover, as explained below and in previous comments, substantial evidence shows that any development on the site under the proposed Project would have significant effects that require the preparation of an EIR. The City must withdraw the Addendum and prepare an EIR.

B. The City Must Prepare an EIR

When an EIR has previously been prepared that could apply to the Project, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when "[n]ew information, which was not known and could not have been known at the time the environmental impact report was certified as

complete, becomes available."[7] The CEQA Guidelines further explain that "new information" may include substantial evidence that "[t]he project will have one or more significant effects not discussed in the previous EIR or negative declaration" or that "[s]ignificant effects previously examined will be substantially more severe than shown in the previous EIR."[8]

We provide evidence in our previous comments, and in supplemental analysis from Mr. Clark, that hazardous site conditions in and around the Project site will cause significant effects during construction of a new site development pursuant to the GPA. These significant effects were not adequately addressed in the Addendum or the DSAP FEIR, thereby triggering the EIR requirement. Furthermore, the Addendum fails to adequately address health risks during construction and operation, as well as energy use and noise impacts, from development under the GPA.

C. Hazardous Site Conditions In and Around the Project Site Will Cause Significant Effects During Site Development under the GPA

We previously demonstrated, with the assistance of Mr. Clark, that the Addendum and previous DSAP FEIR failed to identify all hazardous waste sites near that Project site, and that the presence of impacted soils, including with lead-based paint and other chemicals, would lead to long-lasting impacts on the surrounding community during demolition and construction of a development project on the site. As Mr. Clark stated in our November 7 comments, exposure through impacted soils via incidental ingestion or dermal absorption and through the inhalation of fine dust (particulate matter) impacted with the chemicals is the primary route of exposure for workers, community members and sensitive receptors near the Project site. This exposure would lead to short- and long-term health impacts.

[7] PRC, § 21166; 14 CCR, § 15162(a)(3).
[8] 14 CCR, § 15162(a)(1)(3)(A)-(B).

The City's response to our comments regarding hazardous site conditions stated that "contaminants in groundwater dissipate over time and distance" and that "[g]roundwater flows in a northeasterly direction and, thus, all cases north and east of the project site are downgradient and would have no impact on the project site."[9]

Mr. Clark states that the City's response "ignores the other exposure pathways by which hazardous waste may impact projects."[10] Furthermore, Mr. Clark explains that "[v]olatile organic compounds in the subsurface will volatilize and create a vapor plume. Those plumes may move substantial distances from their source area without the migration of groundwater."[11] In addition, the City is ignoring issues related to the Roofguard site described by Mr. Clark to the south of Project. The site does not meet LTCP criteria from the Regional Board and has not met deadlines for resolving impediments for closure, according to Mr. Clark. Thus, Mr. Clark concludes that "[t]his open site would have significant effects on the development of the Dupont Site" and that the City's responses fail to address our comments. [12]

The site-specific significant effects from hazardous site conditions were not previously analyzed in the Addendum or the DSAP FEIR; therefore, a new EIR is required.

D. The City Still Fails to Address Potential Health Risks and Impacts from Noise and Energy Use

We previously demonstrated that the City failed to address several other site-specific issues in the Addendum. These include a health risk assessment for impacts from site development. Mr. Clark previously stated that both construction and operation of a development project on the site would present potentially significant impacts that have not been evaluated. Furthermore, as the DSAP FEIR and the

[9] *Id*., at 4.
[10] Clark Comments, p. 3.
[11] *Id*.
[12] *Id*.

Addendum have both stated, a site-specific noise analysis is needed. As we have explained, that analysis can and should be done now. Finally, we previously demonstrated that energy use impacts must be evaluated at this stage and the City has not adequately done so.

The City continues to suggest that the Addendum is only a programmatic review document and future development will require project-level analysis. However, the City itself has stated that it can approve subsequent projects as within the scope of the program covered by a prior environmental impact report, negative declaration or addendum – and ***not require further environmental review if the information regarding potentially significant impacts is known at the time the prior environmental review document was prepared***.

Development of a specific project on the site is a foreseeable event that can and should be analyzed. For example, in the Supplemental Staff Report for the Planning Commission hearing, the City explains that in order to evaluate incremental change from the current land use designation to Transit Residential, the "middle range or typical range of residential and commercial densities for development under these land use scenarios are assumed for the current and proposed land use designations for the site."[13] Furthermore, in apparent response to the requirement that the City analyze the reasonably foreseeable maximum development, the City argued that "[t]he reason that the middle or typical range is used as opposed to the maximum intensities potentially allowed under various General Plan land use designations is that building to the maximum intensities for all General Plan land designations would exceed the total planned growth capacity allocated in the General Plan, and this maximum amount of build-out does not represent typical development patterns."[14] The City provides no support for these statements and ignores that it is also, in a separate proceeding, changing the total planned growth capacity allocated in the General Plan.

[13] Supplemental Staff Report, December 4, 2018, p. 3.
[14] *Id*.

The City then explains that by using a middle range or typical range of development, it was able to determine specific traffic counts and resulting transportation impacts, which did not exceed thresholds for developing a "site-specific GPA transportation analysis," according to the City. Presumably, if those counts had exceeded thresholds, then the City could, and indeed would have been required to, complete a site-specific transportation analysis.

The City's response only serves to provide support for our previous comments that the City has the ability and is indeed required to provide site-specific analysis for other resource areas, such as construction health risks, at this stage of the CEQA process. ***Whether that analysis is based on reasonably foreseeable maximum site development, as required by CEQA, or an average range development, as suggested by the City, the City admits that is indeed possible, which is contrary to the City's general responsive argument that because there is no specific development project, site-specific analysis cannot be done.*** The City must analyze the reasonably foreseeable maximum allowable development under the GPA, whatever that may be with respect to other limitations such as FAA height limits (as discussed during the Planning Commission hearing), if supported by substantial evidence and the law, and the City must conduct this analysis now.

Here, since the City has information now that future development allowed by the GPA may have significant impacts, the City is required to prepare an EIR at this time.

IV. CONCLUSION

The City's preparation of an Addendum here was improper under CEQA. Indeed, new information regarding significant effects from hazardous site conditions triggers CEQA's requirement for a subsequent or supplemental EIR. Furthermore, the City continues to unlawfully defer analysis of future development contemplated by the Project, contrary to CEQA's requirements. Instead, the Addendum states that the project is a GPA and provides only limited analysis. However, as explained above and in our previous comments, there are several resources areas where the City is required to provide site-specific analysis when site conditions and potentially significant impacts are known. The City's failure to

analyze these impacts from future development contemplated by the Project in an EIR violates CEQA as a matter of law. Furthermore, the City must clarify the inconsistencies regarding the reasonably foreseeable development potential under this Project. Thank you for your consideration of these comments.

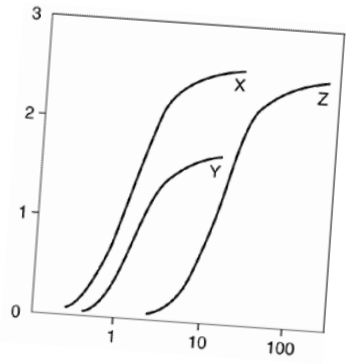
Sincerely,

Laura E. del Castillo

LEDC:ljl

Attachments

ATTACHMENT A



Clark & Associates

OFFICE
12405 Venice Blvd
Suite 331
Los Angeles, CA 90066

PHONE
310-907-6165

FAX
310-398-7626

December 17, 2018

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Attn: Ms. Laura E. del Castillo

Subject: Comment Letter on Supplemental Analysis By City of San Jose On Dupont Street General Plan Addendum Mixed-Use Initial Study/Addendum File No. GP17-017

Dear Ms. Del Castillo:

At the request of San Jose Residents for Responsible Development (San Jose Residents), Clark and Associates (Clark) has reviewed materials related to the October, 2018 Dupont General Plan Addendum (File No. GP17-017), including the Addendum to the Diridon Station Area Plan Final Environmental Impact Report (SCH#2011092022), the Supplemental Analysis by the City dated December 4, 2018, and the December 7th, 2018 Memorandum from the Planning Commission to the City Council regarding the General Plan Amendment.

The Supplemental Analysis states that the Staff has reviewed the letter and appendices submitted by ABJC on behalf of San Jose Residents and found that the comments do not identify any new issues that would results in a potentially significant impact under CEQA that would trigger the preparation of a Subsequent or Supplemental EIR as outlined in Sections 15162 and 15163 of the CEQA guidelines.

The City states that all it is requesting is a change in the land use designation for the property. In the City's analysis it assumes that this program level change does not need a project-specific environmental analysis prior to rezoning. Under CEQA it is vital that the proponent provide an accurate description of the project at the earliest possible stage to ensure that the environmental analysis will accurately detail the impacts

of the project on the environment. For general plan amendments, the project description must include any reasonably anticipated physical development that could occur in view of the approval. Given the range of options that have been outlined in the previous documents, it is prudent and best practice for the City to require that the project description and subsequent environmental impact analysis consider the maximum buildout potential for each project. Assuming the averaged buildout only underestimates the potential impacts of the undefined projects on the citizens and environment of San Jose. This clearly means that the City cannot rely on the future analysis of some undetermined theoretical project to as the reason for granting a zoning change. This approach ignores the City's fundamental responsibilities as the lead agency under CEQA to determine the true impacts of a project before allowing it to proceed.

Specific Comments:

Comment 1: The City is illegally piecemealing the General Plan Amendment from the project.

The City's response to this comment was that " Prior to consideration for approval, development-level projects in the DSAP area will be required to undergo project-level environmental review, which will address impacts and measures to reduce impacts associated with the specific project." As stated above, the City is not performing its duty under CEQA to accurately describe the whole project. CEQA requires that the "whole of the action" that may result either directly or indirectly in physical changes to the environment be described in the analysis. Providing only a partial analysis (a "program level" view) and relying on the assumed accuracy of some future project level EIR will not satisfy the requirements of CEQA for this project.

Comment 2. The City must prepare a Subsequent or Supplemental EIR

The City's response of " the CEQA analysis in the Addendum/Initial Study did not find any new or more substantial impacts than those that were analyzed in the DSAP EIR" is not factual. Since the City did not identify the actual hazards or impacts associated with site development at this moment, they are working in a vacuum regarding the actual impacts of the projects. The City didn't find anything new since they have not updated the analyses concerning site-specific impacts site development. Indeed, in our previous comments we provided substantial evidence of significant impacts that were not identified in previous CEQA documents and therefore trigger a subsequent or supplemental EIR.

Comment 3. City failed to identify all relevant Hazardous Waste sites within one mile of the project site

The City's response " contaminants in groundwater dissipate over time and distance " ignores the other exposure pathways by which hazardous waste may impact projects. The assumption that contact may only will occur via groundwater migration is very short sighted. Volatile organic compounds in the subsurface will volatilize and create a vapor plume. Those plumes may move substantial distances from their source area without the migration of groundwater. That being said, the City is ignoring issues related to Roofguard site to south of project. The extent of the groundwater and soil impacts are not defined and could impact the Dupont Site. The site does not meet LTCP criteria from the Regional Board and has not met deadlines for resolving impediments for closure. This open site would have significant effects on the development of the Dupont Site.

Comment 4. Inadequate analysis of significant impacts

The City's response to comments stated that "the analysis in the Initial Study analyzed the changes in land use under the proposed General Plan Amendment as explained in Response 1. The analysis did not identify any new significant impacts and did not identify the need for any new mitigation measures." The City is again relying on the idea that there is not a specific project they are evaluating so there is no new information or impacts to evaluate.

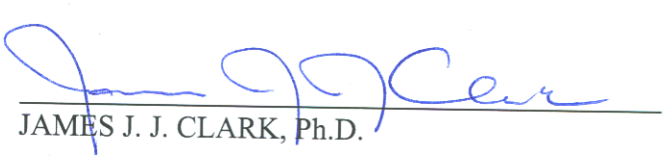
Comment 5. The Addendum fails to comply with CEQA's requirements for Program-level environmental review (pertaining to Air Quality, Energy and Noise impacts).

The City's response that is has "met requirements under program level analysis" is not warranted. Without a clear idea of the actual projects that will be included in the program, the EIR for the project becomes moot. Since the proponent can't tell us exactly how large the project is, what the real impacts are, what the cumulative impacts are or who will be affected, then they have clearly not met their obligation under CEQA. The City should fulfill their obligation under CEQA and complete site-specific analysis reports in a new EIR based on maximum development of the site, such as a Phase I Site Assessment, a Health Risk Assessment, Noise Analysis, and Energy Analysis.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project would result in significant unmitigated impacts that were not identified in the Addendum of the FEIR. To protect public health the City must prepare a new EIR for the Project to address the deficiencies identified above.

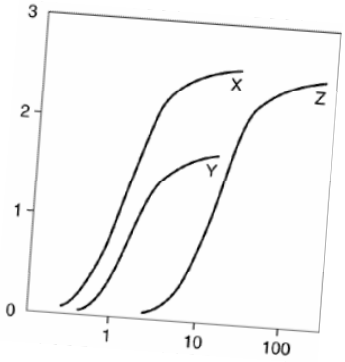
Sincerely,



JAMES J. J. CLARK, Ph.D.

Exhibit A

Curriculum Vitae



Clark & Associates
Environmental Consulting, Inc

OFFICE
12405 Venice Blvd.
Suite 331
Los Angeles, CA 90066

PHONE
310-907-6165

FAX
310-398-7626

EMAIL
jclark.assoc@gmail.com

James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment.*

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. Organohalogen Compounds, Volume 70 (2008) page 000527

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** (2007). "Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *Environmental Research.* 105:194-199.

Rosenfeld, P.E., **Clark, J. J.,** Hensley, A.R., and Suffet, I.H. 2007. "The Use Of An Odor Wheel Classification For The Evaluation of Human Health Risk Criteria For Compost Facilities" Water Science & Technology. 55(5): 345-357.

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** 2006. "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006, August 21 – 25, 2006. Radisson SAS Scandinavia Hotel in Oslo Norway.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2004. "The Value Of An Odor Quality Classification Scheme For Urban Odor" WEFTEC 2004. 77th Annual Technical Exhibition & Conference October 2 - 6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

Clark, J.J.J. 2003. "Manufacturing, Use, Regulation, and Occurrence of a Known Endocrine Disrupting Chemical (EDC), 2,4-Dichlorophnoxyacetic Acid (2,4-D) in California Drinking Water Supplies." National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Minneapolis, MN. March 20, 2003.

Rosenfeld, P. and **J.J.J. Clark**. 2003. "Understanding Historical Use, Chemical Properties, Toxicity, and Regulatory Guidance" National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Phoenix, AZ. February 21, 2003.

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Browne, T., **Clark, J.J.J.** 1998. Treatment Options For Perchlorate In Drinking Water. Proceedings From the Groundwater Resource Association Seventh Annual Meeting, Walnut Creek, CA, October 23, 1998.

Clark, J.J.J., Brown, A., Rodriguez, R. 1998. The Public Health Implications of MtBE and Perchlorate in Water: Risk Management Decisions for Water Purveyors. Proceedings of the National Ground Water Association, Anaheim, CA, June 3-4, 1998.

Clark J.J.J., Brown, A., Ulrey, A. 1997. Impacts of Perchlorate On Drinking Water In The Western United States. U.S. EPA Symposium on Biological and Chemical Reduction of Chlorate and Perchlorate, Cincinnati, OH, December 5, 1997.

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Ozone Exposures in Residents of Los Angeles County. American Review of Respiratory Disease. 141(4):A70.

Tierney, D.F. and **J.J.J. Clark.** (1990). Lung Polyamine Content Can Be Increased By Spermidine Infusions Into Hyperoxic Rats. American Review of Respiratory Disease. 139(4):A41.