Ashley M. Gjovik, JD
In Propria Persona
2108 N St. Ste. 4553
Sacramento, CA, 95816
(415) 964-6272
legal@ashleygjovik.com

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

ASHLEY M. GJØVIK,
an individual,

PLAINTIFF,

VS.

APPLE INC.,
a corporation,

CITY OF SANTA CLARA,
a local government,

MR. JENAB ET AL
(individually, LP, LLC, &/or Trust)

DEFENDANTS.

CASE NO. 25-CV-07360-PCP
ENV. "CITIZEN SUIT" & CAL. PUBLIC NUISANCE

JUDGE: P. CASEY PITTS

PLAINTIFF'S REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF PLAINTIFF'S MOTION FOR PRELIMINARY INJUNCTION

HEARING:
Date: June 4 2026
Time: 10:00 AM
Location: Courtroom 8 – 4th Floor, 280 South 1st St., San Jose, CA

TABLE OF CONTENTS

Request for Judicial Notice

1. Plaintiff Ashley Gjovik respectfully requests, pursuant to Fed. R. Civ. E. 201, that the Court take judicial notice of the following of the public records described within and attached as Exhibits. Plaintiff submits this Request in support of her Motion for a Preliminary Injunction.

I. Arguments

2. Under Federal Rules of Evidence 201, a court must take judicial notice of certain facts "if a party requests it and the court is supplied with the necessary information" and a court may take judicial notice of matters of public record not subject to reasonable dispute. Fed. R. Evid. 201(b)-(c); *Lee v. City of Los Angeles,* 250 F.3d 668, 689–90 (9th Cir. 2001). A fact is "not subject to reasonable dispute" if it is generally known, or "can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned." Fed. R. Evid. 201(b)(1)– (2).

3. A court may also consider documents attached to the pleadings (see, *Lee v. City of Los Angeles,* 250 F.3d 668, 688–89 (9th Cir. 2001)) and documents which are "not physically attached to the complaint" if the complaint "necessarily relies' on them" (*Parrino v. FHP, Inc.,* 146 F.3d 699, 705–06 (9th Cir.1998)).

4. Materials outside the complaint can be considered on a Rule 12(b)(6) motion if they are incorporated by reference therein or otherwise judicially noticeable. *United States v. Ritchie,* 342 F.3d 903, 908 (9th Cir. 2003). A matter that is properly the subject of judicial notice may be considered along with the complaint when deciding a motion to dismiss for failure to state a claim. *Skilstaf, Inc. v. CVS Caremark Corp.,* 669 F3d 1005, 1016, fn. 9; (9th Cir. 2012). Accordingly, "[a] court may take judicial notice of matters of public record without converting a motion to dismiss into a motion for summary judgment." *Khoja v. Orexigen Therapeutics, Inc.*, 899 F.3d 988, 999 (9th Cir. 2018); *Mack v. S. Bay Beer Distribs., Inc.,* 798 F.2d 1279, 1282 (9th Cir. 1986).

A. Properties, Maps, Notices, and Distances between Locations (Exhibits 1-7)

5. The Plaintiff requests that the court take judicial notice of Exhibits 1-7 where they contain maps and property lines for 3250 Scott Blvd (the semiconductor manufacturing facility), the Santa Clara Square Apartments (3255 Scott Blvd and now a variety of addresses), Meadow Park, and Creekside Park. The attached exhibits include formal and official maps from the City of

Santa Clara's website and the County of Santa Clara's website. This also includes official County Accessor parcel maps. The critical facts are detailed below.

6. The plaintiff respectfully requests the court take judicial notice that the property at 3250 Scott Blvd is located at Parcel #117 and is directly adjacent to the south of Parcels #55 and 57, (the Santa Clara Square apartments and Meadow Park). This is relevant because semiconductor fabrication is a heavy industrial activity and generally requires a substantial buffer distance from residential, schools, and sensitive receptors. Judicial notice may be taken of geographical facts. See, *Mogle v. Moore,* 16 Cal. 2d 1, 104 P.2d 785 (1940); *City of Oakland v. Williams,* 15 Cal. 2d 542, 103 P.2d 168 (1940); *People v. Hosney,* 204 Cal. App. 2d 584, 22 Cal. Rptr. 397 (2d Dist. 1962).

7. The plaintiff respectfully requests the court take judicial notice that the building at 3250 Scott Blvd has a distance of around 140-225 ft from the nearest residential building at the Santa Clara Square Apartments, and from Meadow Park, and Creekside Park. This is relevant for the same reason above. The Court may take judicial notice of geographic locations and distances between locations. *United States v. Coutchavlis,* 260 F.3d 1149, 1153–54 (9th Cir. 2001). *Tahoe Forest Inn v. Superior Court,* 99 Cal. App. 3d 509, 160 Cal. Rptr. 314 (3d Dist. 1979).

8. The plaintiff respectfully requests the court take judicial notice that the City of Santa Clara advertises both Meadow Park and Creekside park on their official government website within the city's "Parks and Recreation" department, and has issued press releases and announcements regarding both parks on its official website and official YouTube channel. This is relevant because it shows the city's ownership of the park, and the city's invitation to the community to use these parks, despite the city's knowledge of and participating in creating the dangerous and harmful conditions arising from the operations at 3250 Scott Blvd. The court may examine historical data, maps, and public records. *People v. Stralla,* 14 Cal. 2d 617, 96 P.2d 941 (1939). Courts may take judicial notice of information contained on government websites, see *Hansen Beverage Co. v. Innovation Ventures, LLC,* No. 08–CV–1166–IEG, 2009 WL 6597891, *2 (S.D. Cal. Dec. 23, 2009).

9. The plaintiff respectfully requests the court take judicial notice of the "Notices" posted on the City of Santa Clara's website for the development of the Santa Clara Square Apartments at this location and the parcels noted in 2015 and 2017. This is relevant because it

shows the city was actively involved in the apartment development while it was also overseeing the facility at 3250 Scott Blvd and could have disclosed to the 3250 Scott operations during the apartment planning process but did not. The Court may take judicial notice of information contained on a party's website. Fed. R. Evid. 201(b); see *O'Toole v. Northrop Grumman Corp.*, 499 F.3d 1218 (10th Cir. 2007) (judicial notice proper as to information on defendants' website); *Opperman v. Path, Inc.*, 205 F. Supp. 3d 1064, 1068 n.3 (N.D. Cal. 2016); *Terraza v. Safeway Inc.,* 241 F. Supp. 3d 1057, 1067 (N.D. Cal. 2017).

10. A court may take judicial notice of decisions of local bodies, such as county boards of zoning adjustments and county boards of supervisors. See, *Center for Biological Diversity, Inc. v. FPL Group, Inc.,* 166 Cal. App. 4th 1349, 83 Cal. Rptr. 3d 588 (1st Dist. 2008), as modified on denial of reh'g, (Oct. 9, 2008) or a county planning commission. See, *Watson v. Los Altos School Dist.,* Santa Clara County, 149 Cal. App. 2d 768, 308 P.2d 872 (1st Dist. 1957). A court may take judicial notice of city and county ordinances, codes, and similar legislative enactments. See, *City of Palm Springs v. Luna Crest Inc.,* 245 Cal. App. 4th 879, 200 Cal. Rptr. 3d 128 (4th Dist. 2016) (city municipal code); *League of California Cities v. Superior Court,* 241 Cal. App. 4th 976, 194 Cal. Rptr. 3d 444 (4th Dist. 2015) (city administrative regulation).

B. News, Magazine, and Academic Articles (Exhibits 8-20)

11. The Plaintiff requests that the court take judicial notice of the newspaper articles and clippings collected as Exhibits 8-17 and the magazine and academic articles at Exhibits 18-20. These articles discuss the dangers and harm caused by semiconductor manufacturing, hazardous waste, toxic gases, solvents, pollution, and chemical accidents in Santa Clara County. These articles reflect the public understanding and concerns about facilities just like 3250 Scott Blvd including citing examples of leaks/spills, injuries, death, and environmental contamination. This is relevant to show that the City of Santa Clara is certainly aware of the risks of these types of facilities, and also aware of the decades of community activism and outcry about the idea of locating a facility like 3250 Scott Blvd anywhere near homes, parks, or schools. They are also relevant because they represent a consensus opinion that facilities and operations like 3250 Scott Blvd are viewed as ultrahazardous, capable of creating catastrophic damage, and known to create extensive environmental damage and human injuries/fatalities.

12. The Court may take judicial notice of the coverage and existence of newspaper and magazine articles. See, e.g., *Washington Post v. Robinson*, 935 F.2d 282, 291 (D.C.Cir.1991) (allowing judicial notice of the existence of newspaper articles); *Jackson v. Godwin*, 400 F.2d 529, 536 (5th Cir.1968) (finding that newspapers and magazines allowed in a prison carried extensive coverage of riots to the point where the district court could take judicial notice of such coverage); *Farah v. Esquire Magazine*, 736 F.3d 528, 534 (D.C. Cir. 2013) (in defamation action, noticing publicly available historical articles); *Heliotrope Gen., Inc. v. Ford Motor Co.*, 189 F.3d 971, 981 n.18 (9th Cir. 1999) (affirming "judicial notice that the market was aware of the information contained in news articles"); *Ritter v. Hughes Aircraft Co.*, 58 F.3d 454, 459 (9th Cir. 1995) (affirming judicial notice of widespread layoffs at defendant company based on newspaper article: "[t]his is a fact which would be generally known in Southern California and which would be capable of sufficiently accurate and ready determination"); *Benak v. Alliance Capital Mgmt. L.P.,* 435 F.3d 396, 401 (3d Cir. 2006) (affirming judicial notice of newspaper articles for purposes of analyzing "inquiry notice"); *Washington Post v. Robinson*, 935 F.2d 282, 291 (D.C. Cir. 1991) (court "may take judicial notice of the existence of newspaper articles in the Washington, D.C., area that publicized the ongoing criminal investigation …"); *Woodfin Suite Hotels, LLC v. City of Emeryville,* 2007 U.S. Dist. LEXIS 4467, *8-9 (N.D. Cal. Jan. 8, 2007) (in action challenging constitutionality of local ordinance, granting judicial notice of "two articles about hotel industry revenues."). scientific articles, see *Riva v. Pepsico, Inc.,* 82 F. Supp. 3d 1045, 1049 n.1 (N.D. Cal. 2015) (scientific articles).

13. Courts take judicial notice of scientific facts and propositions, *McAllister v. Workmen's Compensation Appeals Bd.,* 69 Cal. 2d 408, 71 Cal. Rptr. 697, 445 P.2d 313 (1968) (that smoke is visible because it contains incompletely oxidized materials). Judicial notice may be taken of the deleterious effect of certain chemical elements on the tissues, flesh, and organs of the human body. *Katz v. Helbing,* 205 Cal. 629, 271 P. 1062, 62 A.L.R. 825 (1928).

C. Government and Advisory Records (Exhibit 21; Dkt. 3-2, 3-3; Exhibit 22-23).

14. The Plaintiff requests that the court take judicial notice of excerpts of the International Fire Code for Semiconductor Fabrication Facilities at Exhibit 21 where it speaks about the inherently dangerous nature of semiconductor manufacturing and the need to ensure distance between these facilities and residential areas. The Plaintiff requests the court incorporate by

reference, judicially notice, or otherwise incorporate the attached exhibits to the Original Complaint at Dkt. No. 3-0, 3-2 and 3-3. Dkt. 3.0 contains a copy of the Sixty Day Notice for this Citizen Suit (with proof of service at Dkt. 3-1).

15. Dkt. 3-2 contains copies of U.S. EPA records for 3250 Scott Blvd including a 2023 EPA RCRA inspection in August 2023 and January 2024 and notice of violations (Dkt. 3-2 at 8 and 33), a 2025 U.S. EPA letter with a demand to show cause and notice of civil administrative complaint about those violations (Dkt. 3-2 29), an reported annual release of 16,083.62 pounds of air pollutants into the ambient air from this facility (Dkt. 3-2 at 83) and one TRI report filed and which reported an airborne release of 260.17 pounds of N-Methyl-2-pyrrolidone (NMP) (Dkt. 3-2 at 89). These are all relevant because these are public records already available without discovery that show there are air emissions with significant amounts of pollution and the U.S. EPA RCRA team already found numerous violations of the RCRA at the facility.

16. A court may take judicial notice of agency reports that are "factual findings resulting from an investigation made pursuant to authority granted by law" and which suggest a pattern of violations with a company's day-to-day operations. *United States v. Ramirez-Jiminez*, 967 F.2d 1321, 1326 (9th Cir. 1992). The Court may take judicial notice of records related to permits See, e.g.,*Olympic Forest Coalition v. Coast Seafoods Co.,* 884 F.3d 901, 904 (9th Cir. 2018) (reviewing court notices letter from Washington Department of Ecology to defendant about pollution discharge permit). The Court may take judicial notice of letters from agencies related to environmental matters. See, e.g., *Alliance for the Wild Rockies v. Savage*, 897 F.3d 1025, 1032 n.11 (9th Cir. 2018) (in Endangered Species Act case, reviewing court notices USFS letter requesting re-consultation with Fish and Wildlife Service before approving forest management project).

17. The Plaintiff request the court incorporate by reference and/or judicial notice the records at Dkt. 3-3 including the Plaintiff's complaints to the U.S. EPA in June 2023 about 3250 Scott Blvd, her communications with the EPA RCRA team in June 2023 (Dkt. 3-3 at 3)., the initial complaint she filed about the facility in June 2023 and that the coversheet listed violations of RCRA, EPCRA, CAA, CWA, TSCA, California Public Nuisance, and additional laws (Dkt. 3-3 at 6).. This was over two years ago and it was also submitted to the City of Santa Clara (Dkt. 3-3 at 33,36-38) including Mayor Gillmor. This also includes an email sent to Mayor Gillmor in Feb. 2021

about chemical injuries at the apartments and warning the city of "public health issue affect[ing] 2,000 people" and asking for them to help. These documents are relevant because they show the Plaintiff has attempted to raise these issues, in detail, to the city of Santa Clara for over four years.

18. Exhibit 22 is a true and correct copy of the appellate decision and Motion to Show Cause in *LSI Logic v Santa Clara/MSA*.

19. Exhibit 23 is a true and correct copy of the Settlement Agreement in *California v Apple Inc* regarding the DTSC complaint against Apple over hazardous waste handling.

II. AUTHENTICATION

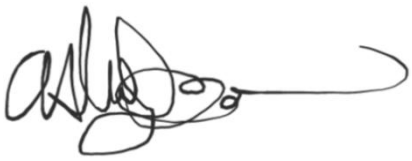
Pursuant to 28 U.S.C.§ 1746, I, Ashley M. Gjovik, hereby declare as follow:

20. I am a self-represented Plaintiff in this above captioned matter. I have personal knowledge of all facts stated in this Declaration, and if called to testify, I could and would testify competently thereto.

21. The Exhibits in this Request for Judicial Notice are true and correct copies of the documents described, with the source of the documents noted on or around each Exhibit.

22. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct and that this declaration was executed on April 26 2026 in San Jose, California.

Respectfully filed,

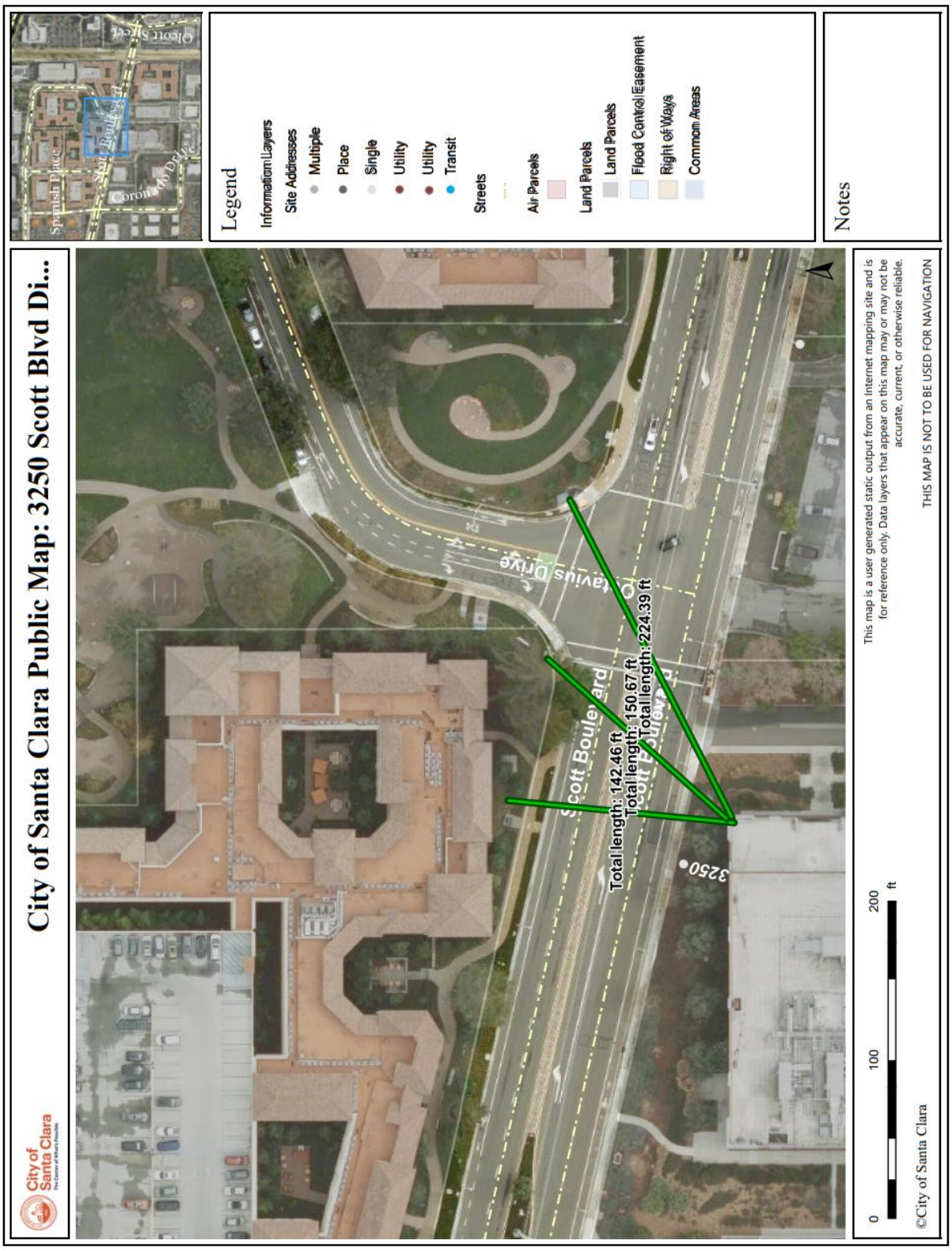


/s/ Ashley M. Gjovik
/s/ Ashley M. Gjovik (*Pro Se*)
April 26, 2026
Alviso, City of San José, California
legal@ashleygjovik.com
(415) 964-6272

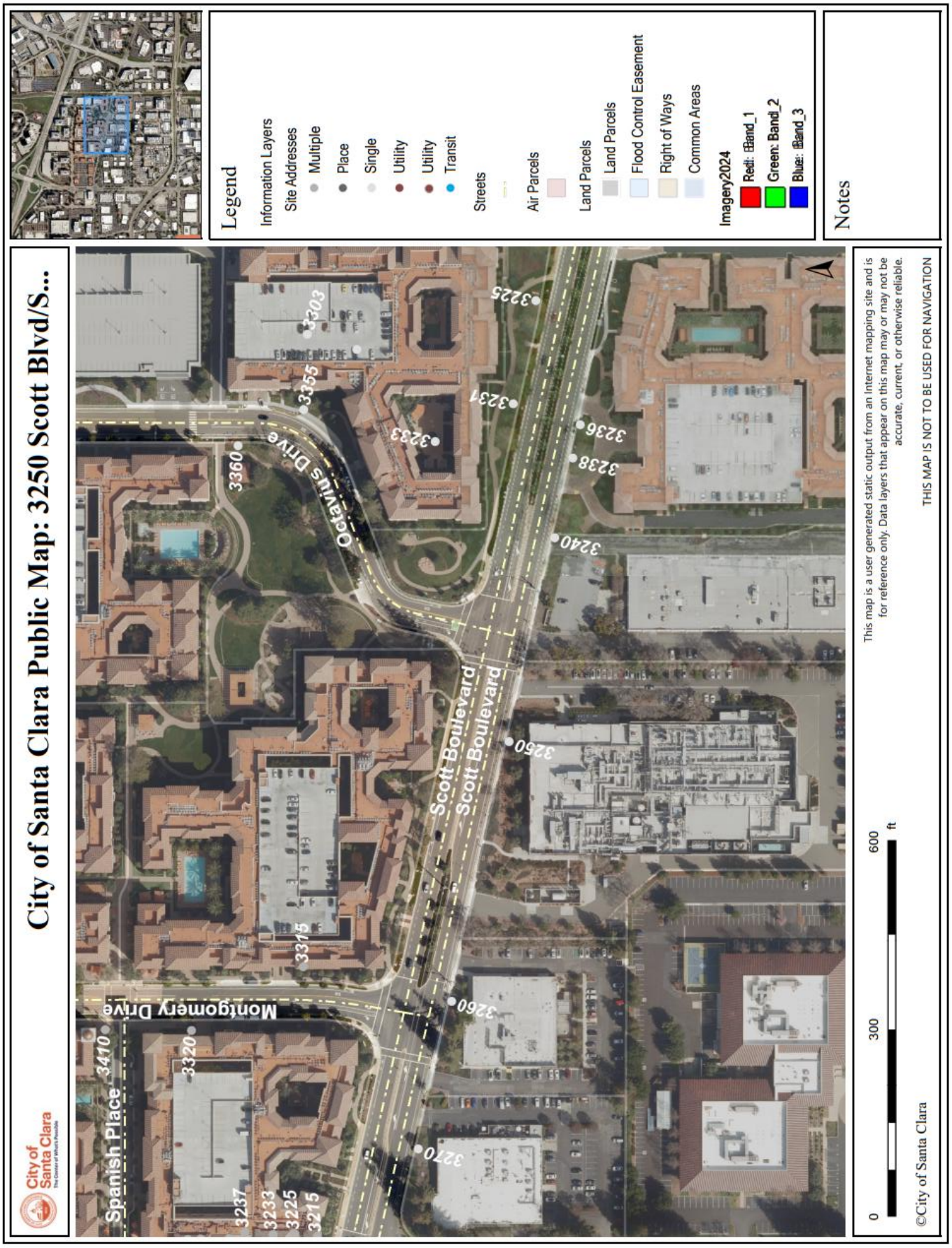
III. List of Exhibits

A. Exhibits: Maps

1. Exhibit: Distance Between Parcels (Santa Clara)



Source: The City of Santa Clara Public Web Map, https://map.santaclaraca.gov/


City of Santa Clara Public Map: 3250 Scott Blvd/S...
City of Santa Clara
Legend
Information Layers
Site Addresses
Multiple
Place
Single
Utility
Utility
Transit
Streets
Air Parcels
Land Parcels
Land Parcels
Flood Control Easement
Right of Ways
Common Areas
Imagery2024
Red: Band_1
Green: Band_2
Blue: Band_3
Notes
Scott Boulevard
Scott Boulevard
Octavius Drive
Montgomery Drive
Spanish Place
3410
3320
3303
3355
3360
3315
3237
3233
3225
3215
3225
3231
3233
3236
3238
3240
3260
3260
3270
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION
0
300
600
ft
©City of Santa Clara

2. PARCEL MAP: 3250 SCOTT BLVD #117 (SANTA CLARA)

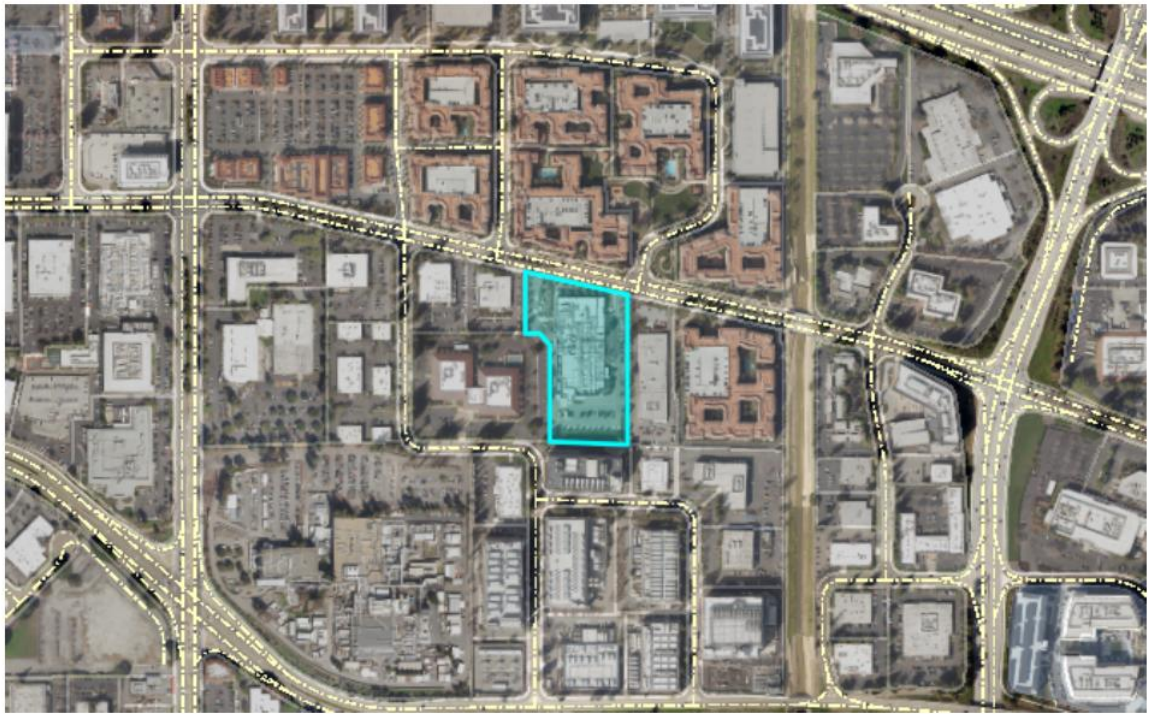
Source: Santa Clara City website

City of Santa Clara Property Report

Assessor's Parcel Number: 216-29-117

City of Santa Clara
The Center of What's Possible

Report generated: 10/22/2025 6:34:17 AM



View of the Property

Street View Image

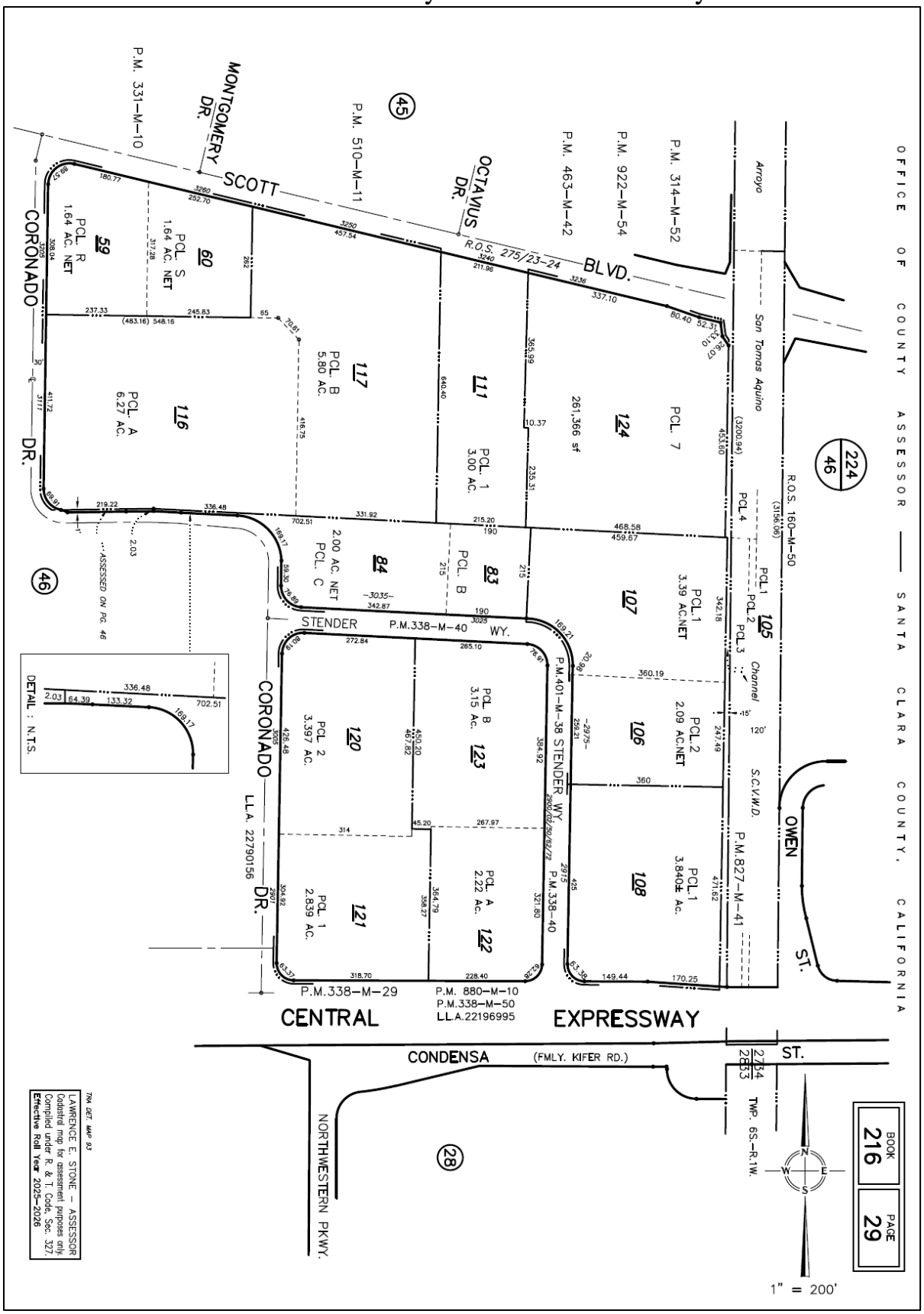
Property Location Overview

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. School service boundaries are for reference only. Please contact the schools directly to verify enrollment eligibity.

City of Santa Clara Public Web Map

3. PARCEL MAP: 3250 SCOTT BLVD #117 (SANTA CLARA)

Source: Santa Clara County: Office of the County Accessor



County of Santa Clara
Department of Tax and Collections
110 West Tasman Drive
San Jose, California 95134

SECURED PROPERTY TAX BILL

TAX YEAR: 2025-2026

for July 01, 2025 through June 30, 2026

ASSESSOR'S PARCEL NUMBER (APN): 216-29-117

ASSESSEE NAME WITHHELD PER
CALIFORNIA GOVERNMENT CODE SECTION 7928.205

T2139 P1 431521

MAILING ADDRESS INFORMATION WITHHELD
LOS ALTOS CA 94022-2279

TAX BILL INFORMATION

PROPERTY ADDRESS:
3250 SCOTT BL
SANTA CLARA CA 95054

BILL ID:	9633740
BILL SUFFIX:	00
TAX RATE AREA:	007-014
BILL CREATED:	09/05/2025

ASSESSEE AS OF 12:01AM, JANUARY 1, 2025, LIEN DATE:

SEC-REG-202208 449606

SUMMARY OF TAXES

Assessed Value of the Property	$10,517,725
Less Exemption	0
Net Assessed Value	$10,517,725
Taxes Due	$124,372.02
Special Assessments	4,253.38
Total Amount Due	**$128,625.40**
Penalties, Cost, Returned Payment Fee	$0.00
Less Amount Paid	0.00
Current Amount Due	**$128,625.40**

(Details Of Tax Calculations Are On The Reverse Side)

CONTACT INFORMATION

Department of Tax & Collections:
(408) 808-7900
scctax@fin.sccgov.org
https://dtac.santaclaracounty.gov

Office of the Assessor:
(408) 299-5300
rp@asr.sccgov.org
https://www.sccassessor.org

Special Assessments:
https://www.sccgov.org/SA

IMPORTANT MESSAGES

For an explanation of key areas on your bill, please visit www.sccdtac.org/tbe. Consult your tax preparer for details regarding deductions.
DTAC accepts partial payments.
For Proposition 19 information please go to www.sccassessor.org/prop19

PAY ELECTRONICALLY

https://payments.sccgov.org/propertytax

VISA MasterCard DISCOVER E-Check

Visit www.WhereDoTaxesGo.org for tax distribution details.

Sign up to receive email reminders for important announcements related to your property tax bills at: https://dtac.santaclaracounty.gov/notify

2025-2026 COUNTY OF SANTA CLARA SECURED PROPERTY TAXES - 2ND INSTALLMENT

SEC-REG-202208 449606

20250905/20251022

2

ASSESSEE NAME WITHHELD PER
CALIFORNIA GOVERNMENT CODE SECTION 7928.205
3250 SCOTT BL
SANTA CLARA CA 95054

APN: 216-29-117-00

MAKE CHECKS PAYABLE TO: SCC DTAC
Please write your APN and installment number on your check.

DUE BY: February 01, 2026
DELINQUENT AFTER April 10, 2026

Amount Due $64,312.70

$70,763.97 if not paid by 04/10/2026.
Includes 10% penalty and $20.00 cost.

MAIL TO:
DEPARTMENT OF TAX AND COLLECTIONS
110 WEST TASMAN DRIVE
SAN JOSE, CA 95134

1 0021629117 0000 2 00006431270 0

CALCULATION OF TAXES for APN: 216-29-117-00

TAX YEAR: 2025-2026 for July 01, 2025 through June 30, 2026

ASSESSED VALUES

Land	8,705,190
Improvements	1,812,535
Total Land and Improvements	**10,517,725**
Personal Property	0
Total Assessed Value	**10,517,725**
Less Homeowners Exemption	
Less Other Exemption	
Net Assessed Value	**$10,517,725**

PAYMENTS

Payments Applied to 1st Installment	0.00
Payments Applied to 2nd Installment	0.00
Amount Paid	**$0.00**

DETAIL OF TAXES

TAXING AGENCY	VALUE	RATES (%)	AMOUNT
LAND, IMPROVEMENTS, PERSONAL PROPERTY			
1% MAXIMUM LEVY	10,517,725	1.000000	105,177.25
CO BOND 2008 HOSP FAC	10,517,725	0.005200	546.92
CO RETIREMENT LEVY	10,517,725	0.038800	4,080.87
CO. HOUSING BOND 2016	10,517,725	0.005600	588.99
COMM COLLEGE BONDS	10,517,725	0.019200	2,019.38
ELEM OR UNIF SCH BONDS	10,517,725	0.081100	8,529.85
SANTA CLARA CITY BOND 2024	10,517,725	0.028700	3,018.58
TOTAL ASSESSED VALUE TAXES		**1.178600**	**123,961.84**
LAND AND IMPROVEMENTS			
SCVWD-STATE WATER PROJ	10,517,725	0.003900	410.19
TOTAL LAND & IMPROVEMENT TAXES		**0.003900**	**410.19**
Rounding Adjustment of -0.01 made to create two equal installments			-0.01
TAXES DUE			**$124,372.02**

Note: Tax amounts less than 0.01 are truncated per CA R&T code 2152

To request a copy of an itemized list of each bond on the bill and/or the tax distribution, call (408) 808-7900, or visit our website to review and print a copy at https://dtac.santaclaracounty.gov/home

PARCEL TAX / SPECIAL ASSESSMENTS

SA#	TAXING AGENCY	NAME	CONTACT	AMOUNT
0881	SANTA CLARA VALLEY WATER DIST	FLOOD CTL DEBT-N CENTRAL	408-630-2810	216.74
0980	SF BAY RESTORATION AUTHORITY	MEASURE AA	888-508-8157	12.00
0990	SANTA CLARA VLLY OPEN SPACE AUTH	SCVOSA ASMT # 1	800-273-5167 x105	133.92
1020	SANTA CLARA VLLY OPEN SPACE AUTH	SCVOSA MEASURE T	800-273-5167 x105	24.00
*1023	SANTA CLARA VALLEY WATER DIST	SAFE, CLEAN WATER	408-630-2810	3,732.36
1052	SANTA CLARA CO MOSQ-VECTOR CTRL	SCCO VECTOR CONTROL	800-273-5167 x105	6.70
1053	SANTA CLARA CO MOSQ-VECTOR CTRL	MOSQUITO ASMT #2	800-273-5167 x105	127.66
			TOTAL	**$4,253.38**

* Exemptions may be available for seniors and/or homeowners who meet eligibility requirements. Contact the specific agency above or go to www.sccdtac.org/pte for more information.

INSTALLMENT 1

DUE DATE	11/01/2025
DELINQUENT AFTER	12/10/2025
TAXES AND SPECIAL ASSESSMENTS	$64,312.70
10% DELINQUENT PENALTY	0.00
DELINQUENT COST	0.00
RETURNED PAYMENT FEE	0.00
LESS AMOUNT PAID	0.00
TOTAL INSTALLMENT AMOUNT	**$64,312.70**

INSTALLMENT 2

DUE DATE	02/01/2026
DELINQUENT AFTER	04/10/2026
TAXES AND SPECIAL ASSESSMENTS	$64,312.70
10% DELINQUENT PENALTY	0.00
DELINQUENT COST	0.00
RETURNED PAYMENT FEE	0.00
LESS AMOUNT PAID	0.00
TOTAL INSTALLMENT AMOUNT	**$64,312.70**

SEC-REG-202208 449606 20250905/20251022

GO GREEN! Sign up at https://www.sccassessor.org/register to receive your property tax bill electronically.

ONLINE PAYMENTS†

https://payments.sccgov.org/propertytax

There is no fee if you pay by electronic check.
Credit card convenience fee amounts are detailed on the website.

VISA MasterCard American Express Card DISCOVER E-Check

IN-PERSON PAYMENTS / QUESTIONS†

Department of Tax and Collections
110 West Tasman Drive
San Jose, CA 95134
(408) 808-7900
Phone Hours: 9:00 a.m. to 4:00 p.m. (Monday - Friday)
Office Hours: 8:00 a.m. to 5:00 p.m. (Monday - Friday)

Second installment payment must be received in our office by 5:00 p.m. on APRIL 10, 2026.

PAYMENTS BY MAIL†

Use the envelope provided and return the coupon with your payment and include your Assessor's Parcel Number (APN) on your check or money order. Penalties will apply if taxes are not paid by the delinquency date.

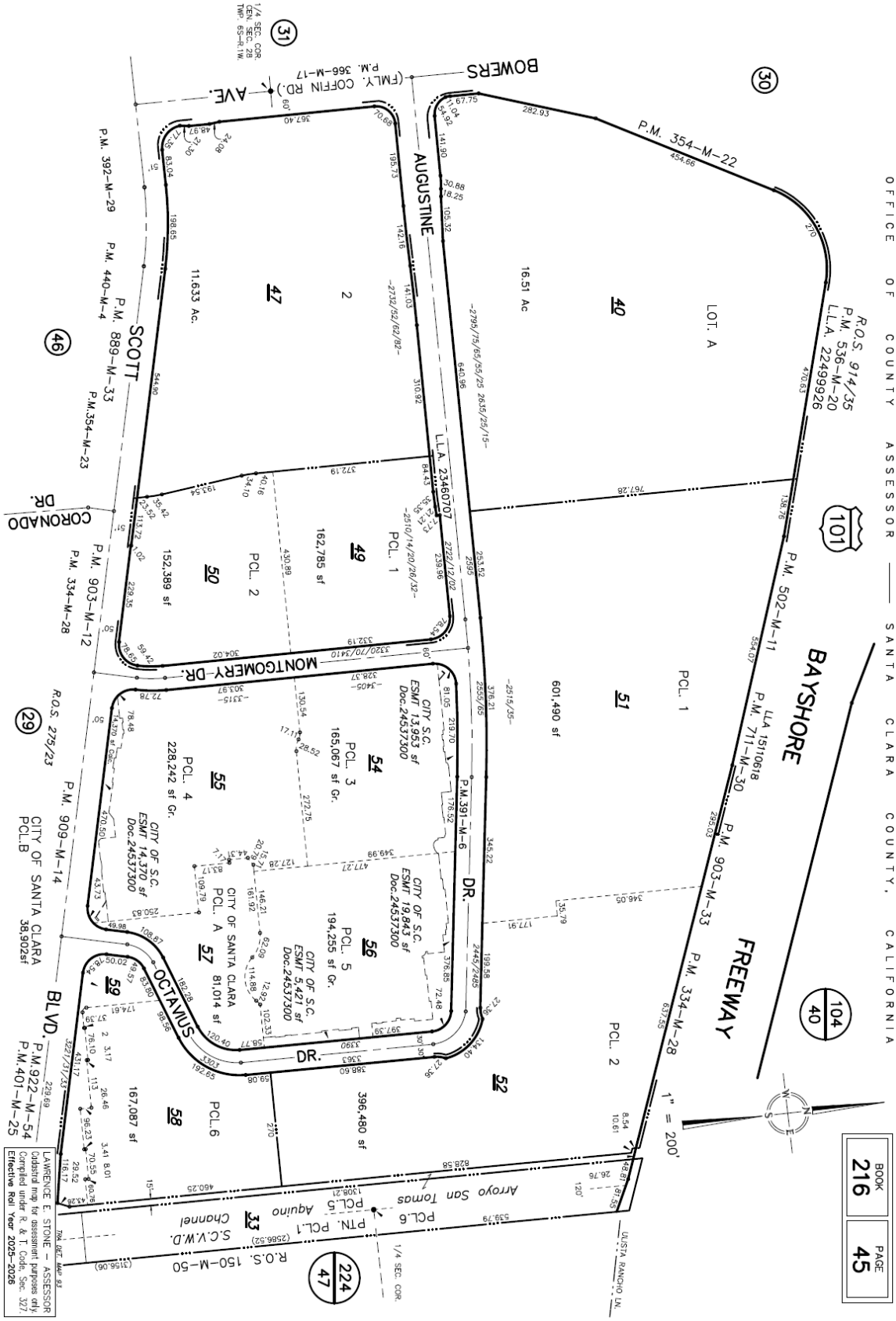
Property tax payments must be received or postmarked in a United States Postal Service (USPS) office by the delinquency date of April 10, 2026. However, if the delinquency date falls on Saturday, Sunday, or County holiday, payments must be made the next business day. If payments are received after the delinquency date with no postmark, penalties will be imposed in accordance with State law. Metered postage dates do not qualify as USPS postmarks. If your payment is received after the delinquency date, you must provide proof that payment was postmarked by the USPS on or before the delinquency date.

Payments made using a Private Delivery Service should be delivered to the address shown on the front of this coupon. Payment received date is the date shown by the private delivery service on the packing slip or air bill attached to the outside of the envelope or package containing the remittance. For a list of authorized private delivery services, visit our website at www.sccdtac.org/pds.

† A charge of $85 will be added for every returned payment

4. PARCEL MAP: SANTA CLARA SQUARE (APARTMENTS #49-56,58; PARKS 57,59)

Santa Clara County: Office of the County Accessor



B. EXHIBITS: PARKS

5. EXHIBIT: CREEKSIDE PARK / REDWOOD TRAIL (3225 SCOTT BLVD)

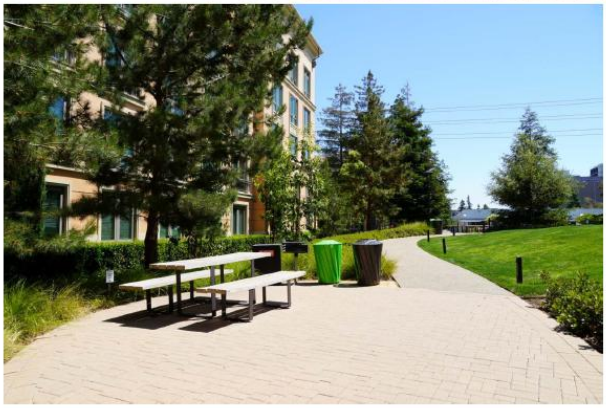
Parks and Facilities

Creekside Park/ Redwood Trail Park

ADDRESS:
3225 Scott Blvd.
Santa Clara, CA 95054

AMENITIES:
- BBQ Facilities
- Fitness Equipment
- Picnic Tables

CATEGORIES:
- Parks



Source: Santa Clara City website, https://www.santaclaraca.gov/Home/Components/FacilityDirectory/FacilityDirectory/153/15258?npage=2 Creekside Park/

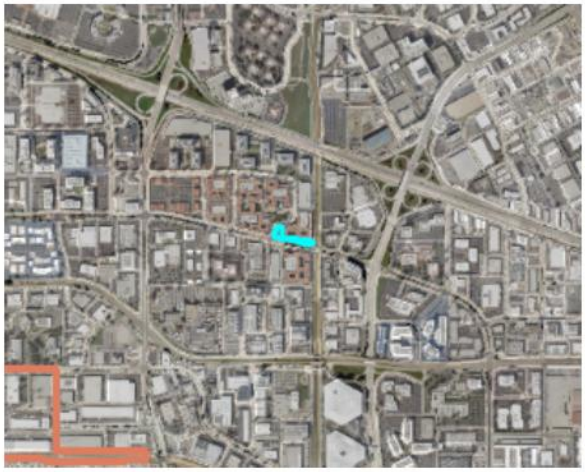
City of Santa Clara Property Report

Assessor's Parcel Number: 216-45-059

City of Santa Clara
The Center of What's Possible

Report generated: 10/22/2025 2:39:19 PM

View of the Property



Street View Image

Property Location Overview

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. School service boundaries are for reference only. Please contact the schools directly to verify enrollment eligibity.

City of Santa Clara Public Web Map

City News

Creekside Park Virtual Ribbon Cutting

Post Date: 04/13/2021 1:30 PM
Contact: Community Recreation Center
Phone Number: 408-615-3140
Email: PRCustomerServe@SantaClaraCA.gov

The City of Santa Clara, together with Mayor Lisa M. Gillmor and Vice Mayor Raj Chahal, celebrate Creekside Park with a virtual ribbon cutting. Creekside Park is located at 3225 Scott Blvd., across the street from Meadow Park, and is a perfect public mini-park for those enjoying San Tomas Aquino Creek Trail, shopping or dining nearby, or looking to get some fresh air. Creekside Park, built by Irvine Companies, features a lit path, picnic tables, BBQ's and a seating area atop the path. Visit SantaClaraCA.gov/ParkProjects to learn more.

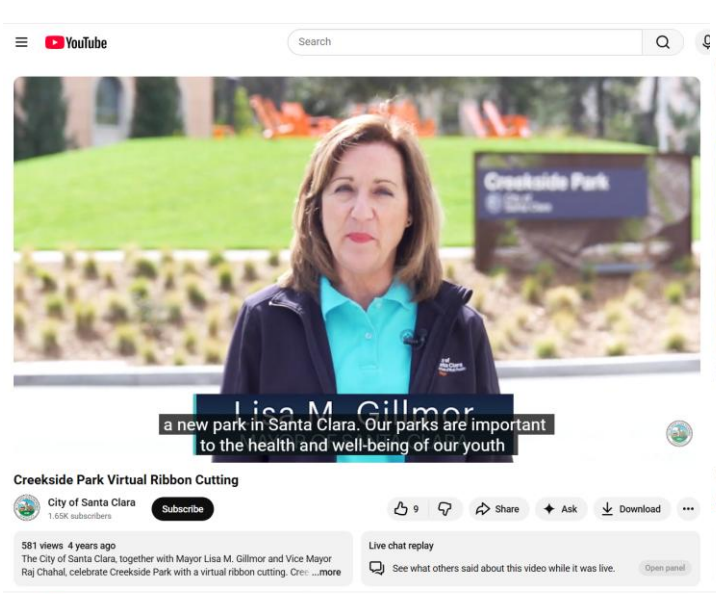
View the virtual ribbon-cutting: https://youtu.be/NsUw8BCJowc.

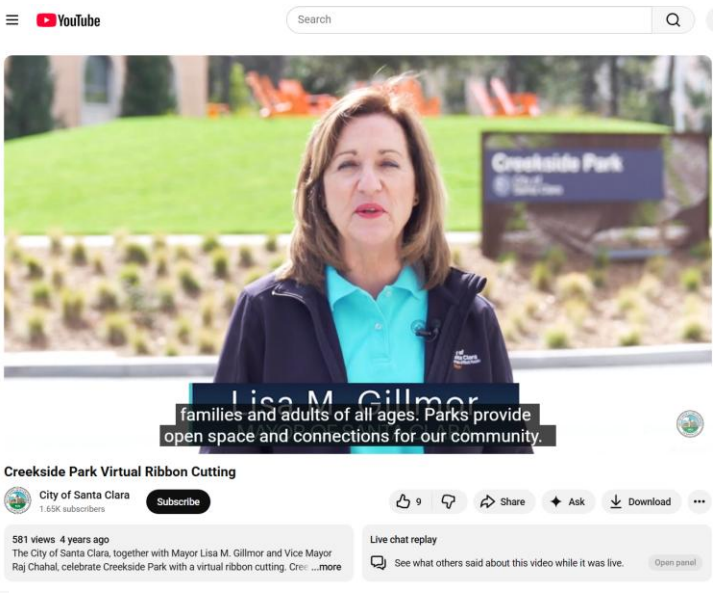
Return to full list >>

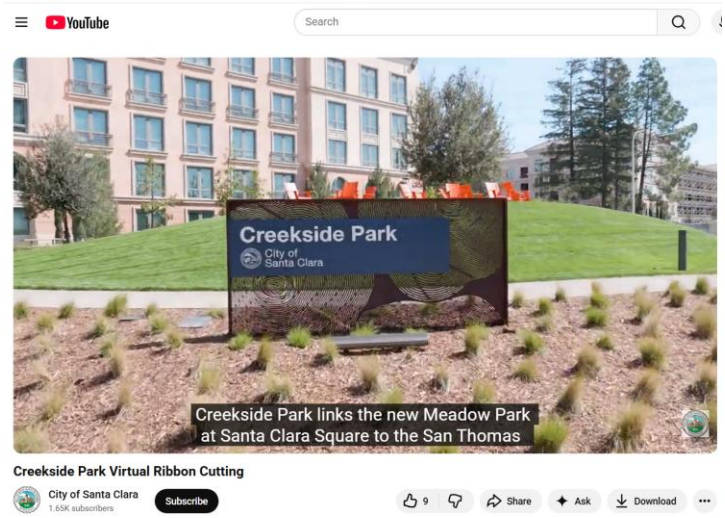
"Creekside Park Virtual Ribbon Cutting," Source: Santa Clara City website, https://www.santaclaraca.gov/Home/Components/News/News/42654/3171?date=20240417030000&npage=49&arch=1

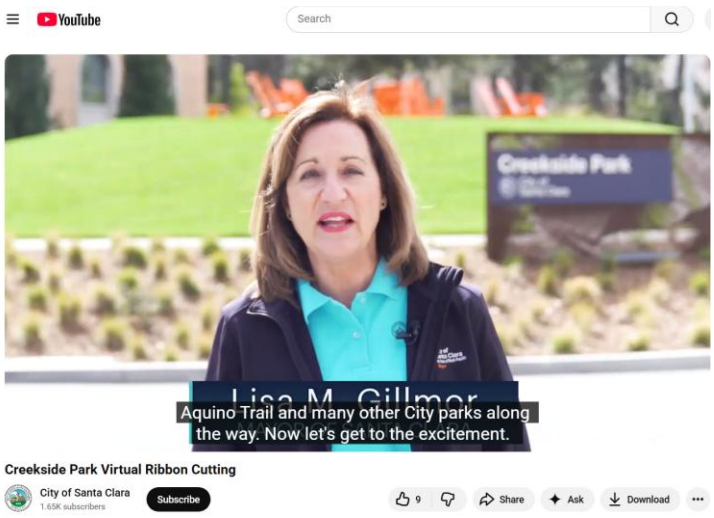
Santa Clara City "Ribbon Cutting" at Creekside Park (April 13 2021)

Source: Santa Clara official YouTube: https://www.youtube.com/watch?v=NsUw8BCJ0wc









6. EXHIBIT: MEADOW PARK (3355 OCTAVIUS DR.)

Parks and Facilities

Meadow Park

ADDRESS:
3355 Octavius Dr
Santa Clara, CA 95054

PHONE:
408-615-3770

AMENITIES:

- BBQ Facilities
- Fitness Equipment
- Picnic Tables
- Playground
- Restrooms

CATEGORIES:

- Parks

Source:https://www.santaclaraca.gov/Home/Components/FacilityDirectory/FacilityDirectory/171/15258?npage=4

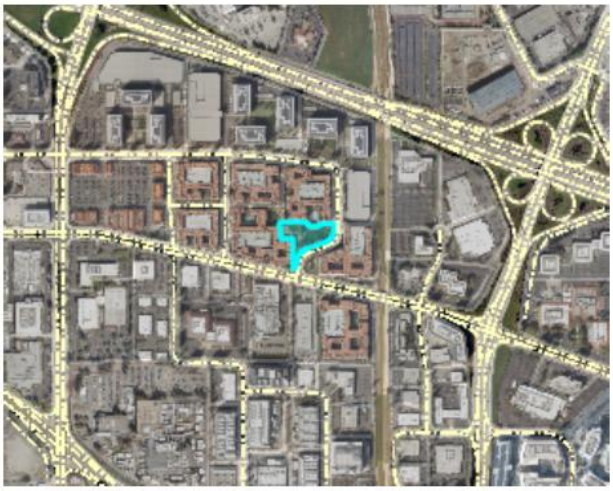
City of Santa Clara Property Report

Assessor's Parcel Number: 216-45-057

City of Santa Clara
The Center of What's Possible

Report generated: 10/22/2025 2:38:20 PM

View of the Property



Street View Image

Property Location Overview

City News

News Release: City of Santa Clara Completes New Park and Playground Improvement Projects During the COVID-19 Pandemic

Post Date: 10/28/2020 2:00 PM

FOR IMMEDIATE RELEASE: October 28, 2020

CONTACT: Lon Peterson, Director of Communications, 408-615-5522 or lpeterson@santaclaraca.gov
Kimberly Castro, Recreation Manager, 408-615-3147 or kcastro@santaclaraca.gov

SANTA CLARA, Calif. – The City of Santa Clara is excited to announce the completion of four park projects during the COVID-19 pandemic. The City has rehabilitated and expanded existing neighborhood and community parks. To complete the projects, capital improvement project funding has been allocated to park projects from available sources including the City's Capital Project Reserve Fund, grants, corporate donations and individual contributions. In addition, fees were collected from new housing development in-lieu of parkland dedication. Here's the list of park projects completed in 2020:

- Agnew Park, located at 2150 Agnew Road., has a new playground that features a triple slide, swings and climbing wall. The project was developed by David Volz Design and over the past six months, constructed by Suarez & Munoz Construction.
- Fuller Park, located at 61 Fuller St., was enhanced to complete the original park master plan "Phase Two", adding a volleyball court, half basketball court and fitness equipment cluster. In addition, accessibility improvements were made to and from the park. This project was designed by David Volz Architect and constructed by Suarez & Munoz Construction.
- Machado Park, located at 3360 Cabrillo Ave. has a new playground that features two playground areas, one for children 2-5 years old and one for those 6-12 years old, plus ramp access to a hillside slide. There are slides, a merry-go all, climbing elements, swings and a picnic area with barbecue grills. This project was designed by Verde Design and constructed by Redwood Engineering.
- Meadow Park, located at 3355 Octavius Drive., features new play spaces with a natural meadow habitat, redwood trail with fitness stations, restroom, a group picnic area and was constructed and dedicated to the City for public use by The Irvine Company. Amenities are crafted from local reclaimed redwoods and provide interesting play areas for children and teens. A focal point of the park is a giant climbing net under the shade of giant redwoods.

"Parks are vital to a thriving community, and we are proud to provide some of the best parks and playgrounds in the state," said Mayor Lisa M. Gillmor. "Enhancing community sports and recreation assets is a City Council priority, outlined during Council's 2020 Priority Setting Session in February."

As the City recreates and rehabilitates its park play environments, the City is working towards becoming a "National Demonstration City" for its model of community input, inclusionary, age friendly designs, integration with the natural environment and sustainability efforts.

"For all park projects in Santa Clara, we use research based, best practices, include all the elements of play to support the physical, cognitive and social growth needs of all ages and abilities, while integrating them with the natural habitat, and using sustainable materials," said James Teixeira, Director of Parks & Recreation.

Since COVID-19 has limited our ability to host large gatherings, we are celebrating virtually by creating a video to show Santa Clara how to enjoy parks while we "Play it Safe, Santa Clara!" Visit SantaClaraCA.gov/ParkProjects to learn more about the City's park projects.

View the City of Santa Clara Virtual Celebration video for park projects.

About the City of Santa Clara

Located at the heart of Silicon Valley about 45 miles south of San Francisco, the City of Santa Clara truly is "The Center of What's Possible." Incorporated in 1852, Santa Clara covers an area of 19.3 square miles with an estimated population of 129,498. Santa Clara is home to an extraordinary array of high-tech companies, including Applied Materials, Hewlett-Packard, Intel, Nvidia, Oracle, and Ericsson. The City of Santa Clara is also home to Santa Clara University, California's Great America Theme Park, and Levi's® Stadium, home of the San Francisco 49ers and SB50. For more information, go to SantaClaraCA.gov.

###

Return to full list >>

Source: News Release: City of Santa Clara Completes New Park and Playground Improvement Projects During the COVID-19 Pandemic October 28, 2020, https://www.santaclaraca.gov/Home/Components/News/News/42015/

Santa Clara City "Ribbon Cutting" at Creekside Park (Oct. 8 2021)

Source: Santa Clara official YouTube: https://www.youtube.com/watch?v=CNekajqRmQ8

Play It Safe, Santa Clara! Santa Clara Celebrates Park Projects and Reed & Grant Sports Park Opening

City of Santa Clara 1.65K subscribers Subscribe 15 Share Ask Download

1,093 views Oct 28, 2020
The City of Santa Clara announces the completion of four park projects including Agnew Park, Fuller Park, Machado Park & Meadow Park. On Oct. 22, 2020 the Santa Clara City Council, Parks & Recreation Commission, City staff and Santa Clara youth soccer players participated in the "First Kick" to inaugurate the Reed & Grant Sports Park. The Reed & Grant Sports Park officially opened for permitted use on Oct. 28, 2020.

Visit the website at SantaClaraCA.gov/ParksandRec for health and safety protocols to Play it Safe, Santa Clara!

YouTube "meadow park" santa clara

Play It Safe, Santa Clara! Santa Clara Celebrates Park Projects and Reed & Grant Sports Park Opening

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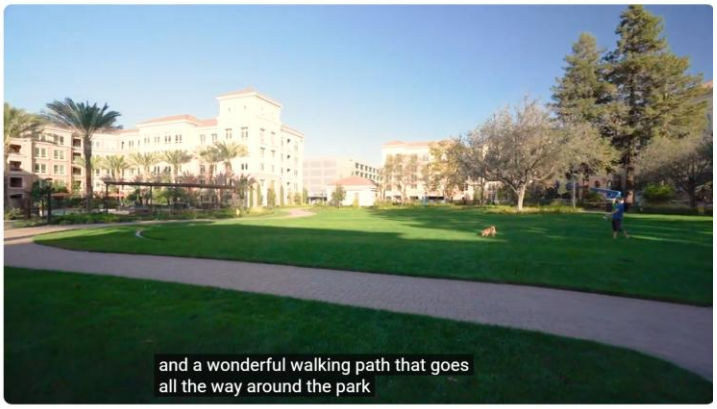
YouTube "meadow park" santa clara



Play It Safe, Santa Clara! Santa Clara Celebrates Park Projects and Reed & Grant Sports Park Opening

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Play It Safe, Santa Clara! Santa Clara Celebrates Park Projects and Reed & Grant Sports Park Opening

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D. EXHIBITS: RESIDENTIAL

7. EXHIBIT: SANTA CLARA SQUARE DEVELOPMENT

Source: Santa Clara City website

City of Santa Clara
The Center of What's Possible

NOTICE

NOTICE OF AVAILABILITY
for Public Review of an
Environmental Impact Report
Distribution Date: October 5, 2015

As authorized by the City of Santa Clara as a Lead Agency, the City hereby provides a **45-day public review period** for an Environmental Impact Report (EIR) prepared pursuant to the California Environmental Quality Act (CEQA).

Project title:	**Santa Clara Square - Residential/Mixed Use Project**
File:	SCH#2015032075, CEQ2015-01186, PLN2015-10899 (GPA), PLN2015-10900 (Rezone), PLN 2015-10901 (DA), PLN2015-10902 (Map)
Location:	2600-2610 Augustine Dr, 3300-3380 Montgomery Dr & 3265 Scott Blvd (APN 216-45-023); 3283 Scott Blvd (APN 216-45-011); 3255 Scott Blvd & 2500 Augustine Dr (APN 216-45-022); 3303-3309 Octavius Dr & 3221-3233 Scott Blvd (APN 216-45-024); 2620 Augustine Dr (APN 216-45-028); 3230 Scott Blvd (APN 216-29-053); 3236 Scott Blvd (APN 216-29-112), Santa Clara, California
Applicant:	Carlene Matchniff, Irvine Company
Owner:	Irvine Company
Request:	The applicant proposes to demolish the existing buildings on the approximately 33.4-acre project site and construct a mixed-use residential development project that would consist of 1,800 apartment units. The proposed project also includes approximately 40,000 gross square feet (gsf) of retail space, 4,500 gsf of leasing space, and approximately 38,000 gsf of amenity space. The proposed project includes a parking garage within each of the seven (7) apartment complexes. Other infrastructure improvements (i.e., sewer, water, and storm drainage) needed to serve the proposed project would also be constructed. Direct access to the site is provided by Bowers Avenue, Scott Boulevard, and Augustine Drive. Other roads that provide access to portions of the project site include Montgomery Drive, and Octavius Drive. The proposed site plans include removal of the existing landscaping and planting of new trees and shrubs on the site. Additionally, a portion of the project site will be reserved for public park or open space uses. Actions to be considered include Certification of the Environmental Impact Report, General Plan Amendment, Rezoning, and Vesting Tentative Parcel Map.

ENVIRONMENTAL IMPACT REPORT DETERMINATION

Based on the conclusions in the Draft EIR, implementation of the proposed project would result in Significant Unavoidable project-level impacts with regard to air quality, land use, and traffic, and Significant Unavoidable cumulative impacts with regard to air quality, noise, traffic, and utilities. All other significant impacts of the project would be mitigated to a less than significant level by the mitigation measures included in the Draft EIR.

AVAILABILITY OF DOCUMENTS: The City has prepared a Draft EIR which is available for review in the project file in the Planning Division office in City Call at 1500 Warburton Avenue, and the Central Library at 2635 Homestead Road, both of which are located in the City of Santa Clara. The document is also available online at www.santaclaraca.gov/CEQA.

PUBLIC COMMENT PERIOD: The public comment period on the Draft EIR will extend for 45 days, **beginning on Monday, October 5, 2015 and ending on Thursday, November 19, 2015.** Comments that are received on the Draft EIR will be addressed and included in the Final EIR (FEIR). All comments must be submitted in writing on or before the end of the public comment period. Written comments on the Draft EIR should be submitted no later than 5:00 PM on November 19, 2014 to:

Lead Agency: City of Santa Clara Planning Division
Contact: Yen Han Chen, Associate Planner, Email: YChen@santaclaraca.gov
1500 Warburton Avenue, Santa Clara, CA 95050
Phone (408) 615-2450, Fax: (408)247-9857

Public Meeting Schedule (Tentative): The City of Santa Clara Planning Commission will hold a public meeting on the EIR and related development applications. This Meeting will be separately noticed and is anticipated for December 9, 2015. Following the conclusion of the Commission meeting, the EIR and related development applications will be tentatively scheduled for consideration and action by the City Council at a public meeting on December 15, 2015. Planning Commission and City Council meetings start at 7:00 PM in the Santa Clara Council Chambers, 1500 Warburton Avenue, Santa Clara. Interested Parties should call the Santa Clara Planning Department at (408) 615-2450 to confirm meeting agendas, times and dates. Confirmed public hearing dates will be posted on the City's website at: www.santaclaraca.gov.

Kevin L. Riley Kevin L Riley Date 10/02/15
Director of Planning & Inspection, City of Santa Clara

I:\PLANNING\2015\Project Files Active\PLN2015-10899 2600 Augustine Dr SCSQ Mixed Use\NOA\NOA Public Notice SCSQ Mixed Use.doc

https://www.santaclaraca.gov/home/showpublisheddocument/15512/635796564332930000

City of Santa Clara
The Center of What's Possible

PLANNING COMMISSION

NOTICE

OF PUBLIC HEARING

You are hereby notified that on **Wednesday, October 11, 2017,** at the hour of **7:00 p.m.,** in the City Council Chambers of City Hall, 1500 Warburton Avenue, Santa Clara, the Planning Commission will consider the following item:

File:	**PLN2017-12688**
Location:	2600-2610 Augustine Drive, 3300-3380 Montgomery Drive & 3265 Scott Blvd, 3283 Scott Blvd, 3255 Scott Blvd & 2500 Augustine Dr., 3303-3309 Octavius Drive & 3221-3233 Scott Blvd., 2620 Augustine Drive, 3230 Scott Blvd; 3236 Scott Blvd, a 33.5-acre site located on Scott Boulevard, between Bowers Avenue and San Tomas Aquino Creek, APNs: 216-45-023, 216-45-011, 216-45-022, 216-45-024, 216-45-028, 216-29-053 and 216-29-112, project site is zoned Planned Development (PD).
Applicant:	Carlene Matchniff, Irvine Company
Owner:	Irvine Company
Subject:	**Rezone** from PD-Planned Development to PD-Planned Development to allow for up to 1840 units (increase of 40 units from 1800 units) and reclassification of 7 units to a leasing showroom, and **Adopt EIR Addendum No.1** to the Certified EIR, SCH# 2015032075.
CEQA Determination:	Addendum to the Certified EIR
Project Planner:	Yen Han Chen, Associate Planner

At the above time and place, you may be heard in this matter if you so desire. If you challenge these land use decisions in court, you may be limited to raising only those issues you or someone else raised at this public hearing or in written correspondence delivered to the City at or prior to the public hearing. Should you have any questions, please call the Planning Division office at (408) 615-2450. Written comments on this item to be heard by the Planning Commission are encouraged to be submitted to the Planning Division, City Hall, 1500 Warburton Avenue, Santa Clara 95050, by Wednesday morning of the week prior to the meeting so they can be included in the Commissioners' packets. (This notice is sent to property owners within 500 feet of the subject property.)

AMERICANS WITH DISABILITIES ACT (ADA)

In accordance with the Americans with Disabilities Act of 1990, the City of Santa Clara will ensure that all existing facilities will be made accessible to the maximum extent feasible. Reasonable modifications in policies, procedures and/or practices will be made as necessary to ensure full and equal access and enjoyment of all programs and activities for all individuals with a disability. Individuals with severe allergies, environmental illness, multiple chemical sensitivity or related disabilities should contact the City's ADA office (408) 615-3000, to discuss meeting accessibility. In order to allow participation by such individuals, please do not wear scented products to meetings at City facilities.

https://www.santaclaraca.gov/home/showpublisheddocument/53871/636428947552670000

Projects Listing

Santa Clara Square development project (The Irvine Company)

Category: Archived Projects

Address: 2600 Augustine Drive (plus multiple addresses on Augustine, Octavious, Montgomery, Scott and Coronado)
Santa Clara, CA

Summary

Project description and status: The Santa Clara Square project encompasses approximately 93 acres and includes office, retail, mixed-use and residential space with approximately 1,862,000 square feet (sf) of office, 178,000 sf of retail and up to 1840 units of residential apartment units. Phase I of the office portion is approximately 618,000 sf. Phases II & III of the office portion total approximately 1,243,300 sf. The buildings are complete and the owner is securing tenant leases for the space. The office portion of the project also includes up to 13,000 sf of retail and amenity buildings. This retail space is constructed and available for leasing. Phase I of the retail portion is comprised of 125,000 sf. The retail center is occupied by a market as an anchor tenant along with 4 main restaurant pads. The buildings are constructed and securing tenants. The residential/mixed-use portion of the project is comprised of 40,000 sf of retail and up to 1840 of apartments in seven buildings. The two mixed- use residential/retail buildings, five residential buildings and new City park are under construction.

Property owner/applicant: The Irvine Company

File numbers: PLN2008-06858 (original approval); PLN2013-09609 (addendum to office and retail); PLN2014-10256 (addendum to office and retail); PLN2014-10577 (amendment to office area); PLN2015-10899 (residential/mixed-use original approval); PLN2017-12688 (residential/mixed-use addendum)

Parcel numbers: APNs 216-29-112, -053; 216-45-006, -009, -011, -014, -019, -022, -023, -024, -025, -027, -028, -031, -032, 036, -037, -038

Project planner/City contact: Debby Fernandez, Associate Planner; dfernandez@santaclaraca.gov, 408-615-2450

Resources

Environmental review documents

City Council meeting (5/5/09) minutes

Planning Commission hearing (6/26/13) minutes

City Council meeting (7/2/13) minutes

Planning Commission hearing (5/28/14) minutes

City Council meeting (6/10/14) minutes

Planning Commission hearing (10/22/14) minutes

City Council meeting (11/18/14) minutes

Planning Commission hearing (12/9/15) minutes

City Council meeting (12/15/15) minutes

Planning Commission hearing (10/11/17) minutes

City Council meeting (11/21/17) minutes and **presentation** (PDF)

Return to full list >>

Source: Santa Clara City website, https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/324/2571?alpha=S

E. Exhibits: News Articles

8. Exhibit: "Warning to Silicon Valley on computer chip gases" (1987)

"Warning to Silicon Valley on computer chip gases," The New York Times, February 8 1987, in collection # MSS-2007-04-06, San José State University Library Special Collections & Archives.

SACTO Bee 2/8/87

State News

Warning to Silicon Valley on computer chip gases

By Katherine Bishop
New York Times

SAN FRANCISCO — A new report has warned that the high-technology area south of here is not prepared for a "catastrophe" that could result from a major release of highly toxic gases in an earthquake, fire or traffic accident.

The report by researchers at San Jose State University said materials used in the manufacture of silicon chips could menace the health of people within a dozen miles of a plant in the event of an accident or a natural disaster.

A major concern is over the release of arsine, a highly poisonous, inflammable gas that is stored by manufacturers of computer chips. The gas destroys red blood cells and is fatal within a short time of exposure in very high concentrations, the researchers say.

The report found that five companies in the Silicon Valley 50 miles south of here stored enough arsine to endanger the health of people within a 12.5-mile radius if they breathed the gas for several hours in the event of a major release of arsine into the atmosphere.

"We drew circles out from the storage sites and they covered virtually the entire valley," said Dr. Kenneth P. MacKay, a San Jose meteorology professor who helped write the report.

The five companies listed in the report are Raytheon in Mountain View, Advanced Micro Devices in Sunnyvale, Exel in San Jose and Precision Monoliths and Epitaxy, both in Santa Clara.

Eight other plants store arsine in quantities that could affect people within a six-mile radius of a leak, said the report, which based its calculations on the Environmental Protection Agency's air pollution dispersion models.

> "We drew circles out from the storage sites and they covered virtually the entire valley"
>
> **— Kenneth MacKay, a report writer**

They are Xerox and General Instruments, both in Palo Alto; Data General, Advanced Micro Devices and two plants of Signetics, all in Sunnyvale; and Intel and National Semiconductor in Santa Clara.

The report was prepared for the Silicon Valley Toxics Coalition, which is made up of environmental groups and labor unions in the area that are seeking to reduce the use of hazardous chemicals in the workplace.

Toxic gases such as arsine and phosphine are added to pure silicon, a derivative of sand, to give the semiconductor chips their electrical properties. They are normally stored in compressed gas cylinders in high concentrations.

Michael Belliveau of the Citizens for a Better Environment, a national group, said 30 minutes of exposure to arsine at a concentration of 25 parts per million is fatal.

The report also warned of potential toxic gas hazards that are not related to the semiconductor industry such as chlorine, which is stored in large quantities at sewage-treatment plants and other locations.

The Silicon Valley Toxics Coalition plans to use the report to support its arguments in favor of specially designed containment buildings for storing the toxic gases, neighborhood emergency warning systems in case a leak occurs and requirements that companies develop computer models to show how leaking gas would be dispersed so residents could avoid exposure in an emergency.

The issues are being raised now because the Santa Clara County Fire Chiefs' Association is drafting a model ordinance to regulate the storage and handling of toxic gases in the valley. The final version is be presented to state officials July 1.

Steven W. Pedersen, the director of environmental affairs for the Semiconductor Industry Association, a trade group representing about 50 companies in the valley, said that many companies already comply with standards being devised for the national Uniform Fire Code regarding the handling of toxic materials.

These include monitoring, automatic shut-off of leaky valves and routing of gases through treatment systems, but they do not include the dispersion models sought by the toxics coalition.

9. EXHIBIT:" ACTIVIST CALLS SEMICONDUCTOR INDUSTRY HISTORY'S MOST DANGEROUS" (1984)

Source: The Oregonian (1984) in collection # MSS-2007-04-06, San José State University Library Special Collections & Archives.

Activist calls semiconductor industry histo

Associated Press

FIGHTER — Typewriter at the ready. Gayle F. Southworth takes a break at his home in Berkeley, Calif. Southworth worries that exposure of workers to chemicals in the semiconductor industry is dangerous.

Story on Page C1 also

By SPENCER HEINZ
of The Oregonian staff

The semiconductor industry is the most dangerous business in history, says Gayle F. Southworth.

Southworth is an activist who is spreading some downbeat concerns in California's Silicon Valley, heart of America's high-tech semiconductor industry.

As the director of a non-profit educational and informational clearinghouse in San Jose called the Santa Clara Center for Occupational Safety and Health, Southworth charges that the semiconductor industry and government are doing woefully little to inform and protect workers.

He says the EPA's glycol ether alert is significant only because that agency so far has done little or nothing to investigate potential dangers with many other deadly acids, solvents and gases used by semiconductor workers.

"In fact, prior to that hazard alert coming out, they were widely regarded as among the most benign of the chemicals used by the industry," he said of glycol ethers.

"It is one of the most dangerous of all industries in the history of humanity. Even though it has the image of a clean and light industry, the people who work in it are exposed daily and repeatedly to incredibly dangerous chemicals," Southworth said.

A former research director for the Service Employees International Union in San Jose, Southworth moved to his present job in 1980, one year after the Santa Clara Center was founded by representatives of unions, womens' organizations and some electronics industry workers. The reported annual budget is about $45,000 a year, which pays salaries and operating costs for Southworth and an associate, Pat Lamborn, who said operating money comes mostly from unions and "social justice foundations."

"We exist to educate and organize workers themselves," Lamborn said. "Workers themselves have to be informed because it is in their best interests to safeguard their own health. No one else will do it for them."

Southworth calls attention to an article in the current issue of Technology Review magazine, which says the industry has an unusually high incidence of occupational illnesses. The article says the California Department of Industrial Relations found, in a 1980 survey, that the industry has 1.3 illnesses per 100 workers, compared with 0.4 per 100 workers for general manu-

ry's most dangerous

facturing industries — or more than three times as many.

Southworth claims the industry is safe only on paper, that it engages in semantics to avoid full reporting of cases, and that the semiconductor company health clinics normally are not staffed full time by persons well versed in toxicology.

"These company clinics systematically give bad medical advice," he said. "They tell people, 'Don't worry about this chemical. It's not dangerous.' And they say this about very dangerous chemicals."

Asked what semiconductor executives think of him, Southworth said they tend to dismiss him simply as a union organizer — a characterization that he rejects — in a industry without unions.

The director of the Semiconductor Industry Association in San Jose, Thomas D. Hinkelman, echoed that description of Southworth and said the semiconductor industry is one of the safest.

In fact, his trade association said in a news release this week that the U.S. Bureau of Labor Statistics ranks the semiconductor industry "among the safest manufacturing operations in the nation for 1982."

The trade association said semiconductor manufacturing posted an "occupational injury and illness rate" of only 3.8 cases per 100 workers for the year.

"Only 'Guided Missiles and Space Vehicles' and 'Typewriter' manufacturing had better records," the statement said.

Regarding the study cited in Technology Review, Hinkelman dismissed the numbers as having been "discredited" by follow-up reports.

Smack in the center of this emerging dialogue, Southworth emphasized that he does not pretend to be objective in an area that he believes cries out for action.

He said it is difficult — just as it was with asbestos for many years — to prove that semiconductor industry chemicals are directly reponsible for some worker illnesses.

But he claims the government is susceptible to political pressure from the the multibillion-dollar industry, and that little is likely to change unless some people presume the worst is happening and make waves.

"We're worker advocates," he said. "I guess I have a little bit of difficulty with people who express 'scientific objectivity' in this field. While they're accumulating data, morgues are accumulating bodies."

10. EXHIBIT: "DEADLY GAS STORED NEXT DOOR TO SOUTH BAY HOMES" (1986).

Source: San Francisco Examiner, August 10, 1986, in collection # MSS-2007-04-06, San José State University Library Special Collections & Archives.

Weather
Today: Foggy, maybe even drizzly this morning, then fair. Tomorrow: Normal low clouds, then clearing by afternoon. Rain in the Sierra?
Details/Page B-7

San Francisco Examiner

Final edition
If your paper is late or missing or you have delivery questions, please call (415) 777-7800 in San Francisco or the number listed for your community in your local phone directory.

$1.00 Sunday, August 10, 1986 ★★★★★

Deadly gas stored next door to South Bay homes

By Jane Kay
EXAMINER ENVIRONMENTAL WRITER

MOUNTAIN VIEW — Across the street from a company that packages canisters of deadly gases potent enough to kill people blocks away within minutes of a leak, children splash in a front-yard plastic swimming pool.

Next door to the children, David Noble, for seven years a resident in the comfortable green-lawn neighborhood that borders on the clean industrial park, says no one from Air Products and Chemicals Co. has ever approached his family about the possibility of an accident or evacuation.

Yet firefighters and occupational health experts say that considering the large volumes of gases used in the semiconductor industry, an accident is not only possible but can be expected.

Mountain View is one of a dozen Bay Area cities that are home to companies that either supply or commonly use the toxic gases arsine, phosphine, diborane, germane, boron trichloride, hydrogen chloride and chlorine in increasing quantities every year.

And no community is adequately prepared to handle a major disaster that would result from the rupture of a metal cylinder containing arsine gas, according to a recently released report.

To meet the need, a model ordinance that would bring tighter controls on the storage and handling of toxic gas is being written by firefighters, including two Ph.D. chemists in the Silicon Valley.

Noble says he has never had any problems or noticed any odors from the Mountain View plant at 465 Whisman St.: "All we get is a terrific smell of garlic from Gilroy."

But the smell could be caused by a very low release from across the street of arsine gas, the most toxic form of arsenic, and not from Gilroy, more than 25 miles away.

The chief of meteorology at the Bay Area Air Quality Management District said he has never heard anyone even speculate about the Gilroy garlic odor reaching Mountain View. The farthest north it's been tracked is at the IBM plant in south San Jose, he said.

Officials at Air Products, one of the major suppliers of compressed gas to the semiconductor industry, including Rich Steiner, district manager at Mountain View, were unavailable to discuss plant safety. A

— See GAS, back page

GAS
— From A-1

spokesman did say, however, that the company considered safety "a critical issue" and would address the matter, including its plans, later this week.

While some minute concentrations of arsine are allowed under occupational standards, a canister leak could be disastrous, industry and health officials agree.

A compressed gas cylinder containing 200 cubic feet of 10 percent arsine gas that was accidentally vented to the environment would create 10,000 cubic feet of lethal gas for about 10 minutes.

The amount of fresh air needed to dilute the release of a small 20-pound cylinder of phosphine gas to a safe level would cover 276 city blocks and be 10 feet high.

"No industry in history has created so great a demand for arsine gas as the semiconductor industry, yet the risk to communities and workers is seldom discussed with candor," Dr. Joseph LaDou, acting chief of the Division of Occupational Medicine at UC-San Francisco School of Medicine, said in a recently published paper.

Four years ago, LaDou, then concerned about a potential for a large-scale calamity, estimated that nearly 70,000 cubic feet of arsine had been delivered that year to Santa Clara County businesses.

Two doctors, Peter Wald and Charles E. Becker, who studied the industry for the occupational medicine division at UC-San Francisco, said:

"Since the total quantity of toxic gases used in microelectronics companies is large and is increasing rapidly, it must be anticipated that accidents, acts of terrorism or natural calamities will result in exposures."

According to the Semiconductor Industry Association, there are more semiconductor plants in California than in any other state: 120 in Northern California and 65 in the southern part of the state. They all keep the gases on site to use at nearly every stage of the manufacturing process.

In addition to Air Products and Chemical Co., the other suppliers of compressed gas are Matheson Gas Products, Newark; Scientific Gas Products, Fremont; Liquid Air Corp., Union City; and Linde Division of Union Carbide, Santa Clara.

The model ordinance is sought by the Santa Clara County Fire Chief's Association, which through a $100,000 appropriation from the Legislature last September hired two consultants, Practicon Associates of Palo Alto and Microsafe Inc., Santa Clara, to develop a model for cities and counties in California.

Sunnyvale Fire Marshall Ruben Grijalva, who's coordinating the legislation, said last week: "If we do have a major earthquake, the release of the gases could present more of a problem than the earthquake."

Toxic gases are underregulated,

Ruben Grijalva
Gases could 'present more of a problem than the earthquake'

with "not enough regulations to handle fly-by-night companies that separate from a major company," Grijalva said. "Before you know it, they're making chips.

"We're dealing with something that has the potential of being a major catastrophic event. No, I can't point to one in the Santa Clara Valley that has occurred. No, I don't want to point to one in the future that could have been prevented."

Under additions to the Uniform Fire Code in the early 1980s, businesses that use toxic gases have made many improvements in the ways they handle chemicals, fire protection, storage, monitoring and quantities of gas allowed on site.

The Semiconductors Industry Association, which has agreed to work with the ordinance task force, prefers placing controls on toxic gases within the Uniform Fire Code and the Uniform Building Code, where it has more influence, instead of in an ordinance, said spokesman Steven Pedersen.

The ordinance, now in a draft form under review for the third time at a public meeting in Sunnyvale last week, would require an emergency shutdown system.

Gases would have to be more effectively treated — if possible — before they are released to the atmosphere.

Larry Monette, a chemist at the Santa Clara Fire Department, said the body of regulations followed up a pioneer leaking storage tank ordinance passed in Santa Clara County in 1983.

Monette praised new requirements for safeguards and for making citizens and employees aware of the problems associated with toxic gases.

But he said he regretted that the ordinance would not include regulation of the trucks that left such suppliers as Air Products to deliver the canisters to customers.

"If you have a truck going down the road, it's more likely that an accident will happen than when the canisters are chained in a building. We've got to deal with the transportation."

The firefighters task force is investigating how far the cities and towns can go in controlling the trucks in light of the U.S. Department of Transportation's overriding authority.

Corrections and clarifications

It is The Examiner's policy to correct errors. Readers are urged to call mistakes to our attention by writing to us at P.O. Box 7260, San Francisco 94120.

11. EXHIBIT: "400 EVACUATED IN GAS LEAK" (SANTA CLARA, 1989)

Source: San Jose Mercury News (Jan. 5 1989), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

• • • • San Jose Mercury News ■ Thursday, January 5, 1989 5B

400 evacuated in gas leak

Mercury News Staff Report

Four hundred employees at National Semiconductor Corp. in Santa Clara were evacuated Wednesday after a small gas leak of either arsine or phosphine tripped an alarm, authorities said.

The leak, which sounded the alarm at 9:42 a.m., was small enough that it had dissipated by the time firefighters arrived, Sgt. Pat Kolstad of the Santa Clara police said.

He said a mechanical malfunction caused the leak.

No one was injured.

Mary Coady, the company's manager for corporate communications, said the employees returned to work about an hour later.

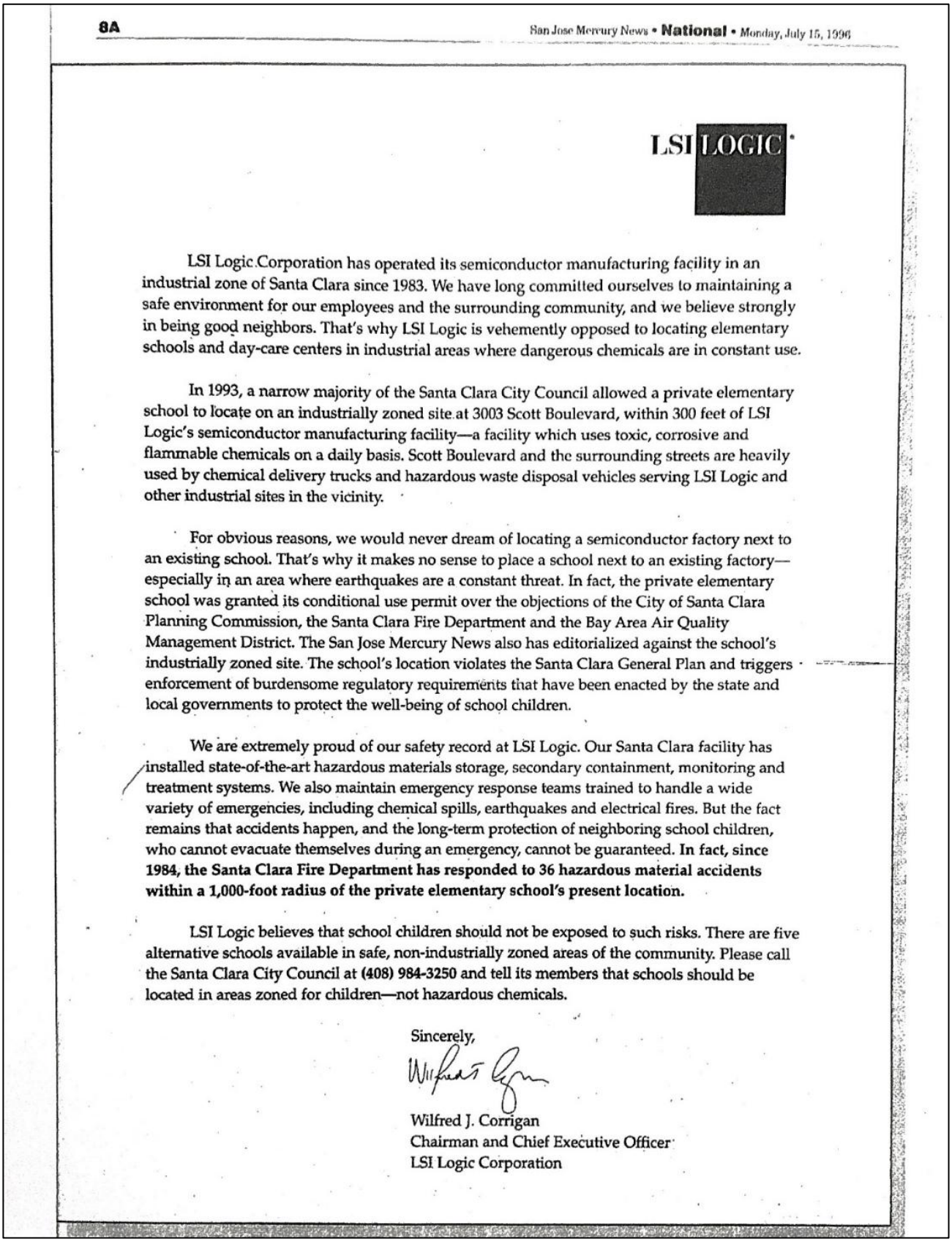
She said the leak occurred in Building A, where logic parts are made. Only employees in that building were evacuated. About 8,000 employees work at the plant, at 2900 Semiconductor Drive.

The company has identified the area where the leak occurred in case the problem occurs again, Coady said. The alarm is set to pick up such a low-level problem that a person could still work in the area for eight hours after the gas began leaking without suffering harm, she said.

Both arsine and phosphine are poisonous.

12. EXHIBIT: SAN JOSE MERCURY NEWS, LSI LOGIC ADVERTISEMENT.

LSI LOGIC advertisement, San Jose Mercury News (July 15 1996), in collection # MSS-2007-04-06, San José State University Library Special Collections & Archives.



8A San Jose Mercury News • National • Monday, July 15, 1996

LSI LOGIC

LSI Logic Corporation has operated its semiconductor manufacturing facility in an industrial zone of Santa Clara since 1983. We have long committed ourselves to maintaining a safe environment for our employees and the surrounding community, and we believe strongly in being good neighbors. That's why LSI Logic is vehemently opposed to locating elementary schools and day-care centers in industrial areas where dangerous chemicals are in constant use.

In 1993, a narrow majority of the Santa Clara City Council allowed a private elementary school to locate on an industrially zoned site at 3003 Scott Boulevard, within 300 feet of LSI Logic's semiconductor manufacturing facility—a facility which uses toxic, corrosive and flammable chemicals on a daily basis. Scott Boulevard and the surrounding streets are heavily used by chemical delivery trucks and hazardous waste disposal vehicles serving LSI Logic and other industrial sites in the vicinity.

For obvious reasons, we would never dream of locating a semiconductor factory next to an existing school. That's why it makes no sense to place a school next to an existing factory—especially in an area where earthquakes are a constant threat. In fact, the private elementary school was granted its conditional use permit over the objections of the City of Santa Clara Planning Commission, the Santa Clara Fire Department and the Bay Area Air Quality Management District. The San Jose Mercury News also has editorialized against the school's industrially zoned site. The school's location violates the Santa Clara General Plan and triggers enforcement of burdensome regulatory requirements that have been enacted by the state and local governments to protect the well-being of school children.

We are extremely proud of our safety record at LSI Logic. Our Santa Clara facility has installed state-of-the-art hazardous materials storage, secondary containment, monitoring and treatment systems. We also maintain emergency response teams trained to handle a wide variety of emergencies, including chemical spills, earthquakes and electrical fires. But the fact remains that accidents happen, and the long-term protection of neighboring school children, who cannot evacuate themselves during an emergency, cannot be guaranteed. **In fact, since 1984, the Santa Clara Fire Department has responded to 36 hazardous material accidents within a 1,000-foot radius of the private elementary school's present location.**

LSI Logic believes that school children should not be exposed to such risks. There are five alternative schools available in safe, non-industrially zoned areas of the community. Please call the Santa Clara City Council at **(408) 984-3250** and tell its members that schools should be located in areas zoned for children—not hazardous chemicals.

Sincerely,

Wilfred J. Corrigan
Chairman and Chief Executive Officer
LSI Logic Corporation

13. EXHIBIT: "POISONOUS GAS ESCAPES PLANT" (SANTA CLARA, 1988)

Source: San Jose Mercury News (Jan. 5 1989), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

Poisonous gas escapes plant

Mercury News Staff Report

A Santa Clara manufacturing plant was evacuated when a maintenance worker inadvertently disconnected a container of highly poisonous gas Wednesday afternoon, said a fire department spokesman.

More than a dozen workers fled Litton Electron Devices, 2285 Martin Ave., at 1:03 p.m. when a small container of boron trifluoride began leaking, said Paul Boskovich, training officer for the Santa Clara Fire Department.

A small amount of the gas got outside the building, Boskovich said. Firefighters closed off Martin Avenue between Scott Boulevard and Walsh Avenue until 2 p.m.

Firefighters wearing "chem suits" for protection sealed off the container. Union Carbide Co., which owns the product, was called to remove it from the premises, Boskovich said.

Boron trifluoride is listed in industrial chemical guidebooks as "very toxic." Poisoning by the chemical can cause "depression of the circulation, persistent vomiting and diarrhea, followed by profound shock and coma," accompanied by subnormal temperature, and a rash may cover the entire body.

12/29/88 SJMN

New homes opposed

REDEVELOPMENT AGENCY
CITY OF SAN JOSE
PUBLIC ANNOUNCEMENT

AVAILABILITY OF RELOCATION PLANS

Relocation Plans for Occupants of the Ter...

14. EXHIBIT: "TOXIC CLOUD HURTS 4 IN SAN JOSE" (1988)

Source: San Jose Mercury News (Jan. 5 1989), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

Toxic cloud hurts 4 in S.J.

Neighborhood evacuated after chemical leak

BY SCOTT THURM, RODNEY FOO AND SCOTT HERHOLD
Mercury News Staff Writers

A yellowish cloud of industrial chemicals leaking from a storage tank menaced a San Jose neighborhood Thursday evening, injuring at least 10 people, forcing the evacuation of a half-dozen blocks east of downtown and the closing of a three-mile stretch of Highway 101.

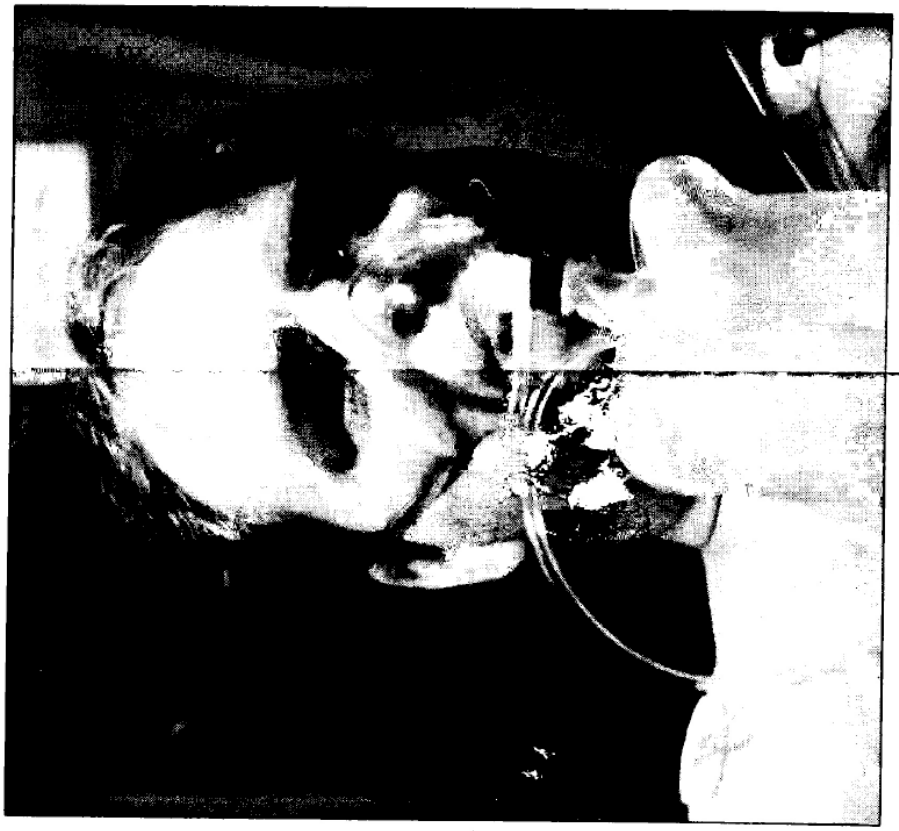
No one appeared to have been seriously injured by the fumes, which leaked from a tank at Solvent Service Co., 1040 Commercial St., shortly after 7:50 p.m.

But seven people, including four San Jose police officers, were treated for irritated eyes, throats and nasal passages. The police officers were expected to be released from San Jose Medical Center early today.

The fumes began dissipating about an hour after the leak occurred; the freeway was reopened shortly after 9 p.m. and evacuated residents of an area northeast of Taylor and 19th streets began returning home about 11 p.m.

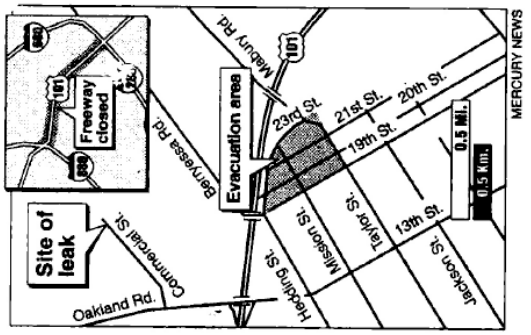
Witnesses described a yellowish cloud at least a half-mile long and extending approximately 60 feet into the air as it drifted south

See TOXIC CLOUD, Page 14A



JUDITH CALSON — MERCURY NEWS

Glen Namos, above, who lives on Mission Street, breathes oxygen in an ambulance after inhaling fumes from a toxic cloud, top left. The chemicals leaked from a storage tank at Solvent Service Co. shortly after 7:50 p.m. Thursday.



Neighbors evacuated after toxic leak in S.J.

■ TOXIC CLOUD

from Page 1A

of the solvent-recycling firm near 13th Street and Highway 101.

"I am wheezy and coughing a little bit," said Fern Cambra, who evacuated her home at Mission and 20th streets with her husband Charles. "I saw a big yellowish plume going up into the sky. It was quite breezy . . . and you could see it spreading south and east.

"We were told to leave and we just left," she continued. "We picked up our next-door neighbor, who is 85 years old."

Public safety officials described the cloud as nitric acid, a highly irritating and corrosive chemical that can burn the skin, eyes and respiratory tract.

San Jose fire investigator Jeff Weber said an exceptionally strong load of nitric acid appeared to have corroded a 5,000-gallon steel truck trailer where the chemicals were being stored. "Basically, the nitric acid ate the steel tank," he said.

Officials said three trucks dumped 2,200 gallons of liquid nitric acid into the tank — which already held 2,200 gallons — earlier Thursday. Weber said one of the loads may have contained hydrochloric acid or sulfuric acid as well.

More than 50 firefighters were called to the scene as officials sounded three alarms. At 10:30 p.m., hazardous-materials specialists clad in white suits and protective gear were going through the site, shining flashlights and checking trucks parked on the lot. Other workers were vacuuming nitric acid liquid into a tanker partly filled with lime, which would neutralize the acid.

Solvent Service Co. is a hazardous-waste recycler, typically taking in loads of used chemicals and shipping them to a central location to be treated for re-use. The company paid a $130,000 fine to state hazardous-waste officials last year for improperly storing waste and sloppy record-keeping as far back as 1986. And the company has been trying to clean up underground contamination from leaking tanks since 1983.

A company official at the Commercial Street terminal Thursday night declined to comment.

An adult and two children from one family were taken to Valley Medical Center for treatment after inhaling the fumes. A nursing supervisor said the three were in stable condition with irritated eyes, but did not know if they would be admitted. Fire Battalion Chief Bob Dorman said the three had to be decontaminated at the scene before being taken to the hospital.

At least three employees of Solvent Service were treated at the scene.

San Jose firefighters drove down Hedding and Taylor streets to alert residents to the evacuation. Dorman said paramedics had to be sent into four houses to bring out sick, disabled and elderly people.

Jody Ward, a 33-year-old electrical technician who works the swing shift, was sleeping during the evacuation. He awoke around 10 p.m. to a dark, deserted neighborhood around his Mission Street home.

"At first it was spooky. A lot of things go through your mind, like the tube, and go outside every once in a while take a sniff."

Renee Mason waits with her neighb

JASON M. GROW — MERCURY NEWS

home Thursday night.

Mercury News Staff Writers Esther Schrader and Maya Suryaraman contributed to this report.

15. EXHIBIT: "TOXIC SMOKE CLOUD SQUELCHED" (MT. VIEW, 1988)

Source: San Jose Mercury News and Times Tribune (July 3 1988), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

At Teledyne in Mtn. View

7/3/88

Toxic smoke cloud squelched

By Lynn Stadler
Times Tribune staff

Fumes and red smoke rising from a 55-gallon drum after an unexplained chemical reaction caused concern Wednesday at Teledyne Semiconductor in Mountain View, fire officials said.

The Mountain View Fire Department was called at about 3:30 p.m., several minutes after a Teledyne employee working in a contained storage area poured hydrochloric and hydrofluoric acid wastes into a mixture of other acid wastes, according to Mountain View fire Marshal Frank Moe.

The employee turned his back for a moment to tend to another task. When he returned to the waste drum, it was emitting fumes and red smoke, Moe said.

The employee was not injured, fire officials said.

The Santa Clara County hazardous materials team was called to the scene, where they set up a contamination area while investigating the potentially dangerous fumes.

Members of the team, dressed in contamination hazard suits, returned from the storage area at 5:45 p.m. to report the chemical reaction had stopped and the situation was under control.

"The ... fumes caused by the chemical reation could have been deadly," Moe said.

The southbound exit ramp onto Stierlin Road from Bayshore Freeway was closed temporarily, but Teledyne buildings were not evacuated.

Workers in the back of the building near the storage area were moved to the front part of the building, Moe said.

The work being done by the employee involved in the accident was routine, Mountain View Fire Chief Hugh Holden said, adding that the chemical reaction may have been the result of mislabeled containers.

The exact cause of the accident will be investigated by a private chemical contractor hired by Teledyne, officials said.

Miguel Luis Fairbanks — Mercury News

Firefighters and chemical experts cast shadows over ingredients that caused smoke

Toxic threat closes Hwy. 101 ramps

By Mike Cassidy
Mercury News Staff Writer

Fire officials closed exit and entrance ramps off southbound U.S. 101 at Stierlin Road in Mountain View on Wednesday after a high-tech worker noticed red smoke swirling in a chemical storage room near the freeway.

No one was injured during the incident. The ramps were closed for about 1½ hours during the afternoon commute hours, said Hugh Holden, Mountain View Fire Department battalion chief.

A chemist at Teledyne Monolythic Microwave, 1274 Terra Bella Ave., was mixing chemicals at about 3:30 p.m. when he noticed the smoke and called the fire department, Holden said.

Fire officials still haven't determined what chemicals caused the reaction, Holden said. He said the department and a private company hired by Teledyne would investigate.

By the time fire officials and Santa Clara County hazardous waste experts arrived, the red smoke had stopped coming out of the 55-gallon drum the chemist was using, Holden said.

"What they found inside was that there was no reaction continuing, so basically whatever was happening was over," he said.

Even so, Holden added, fire officials closed the ramps and part of the company's parking lot while they made sure the danger had passed.

CHP officials said the ramp closings caused very little disruption of traffic.

5pm 7/3/88

16. EXHIBIT: "MILIPITAS TRACT EMPTIED IN WAKE OF TOXIC FUMES"

Source: San Jose Mercury News and Times Tribune (Oct. 7 1986), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

Fumes cause evacuation of Milpitas tract

10/7/86

Mercury News Staff Report

An estimated 1,000 Milpitas residents and workers were evacuated Monday evening in the wake of an apparent chemical spill that sent at least five people to hospitals.

The spill or leak is believed to have occurred at Xicor Inc., 1511 Buckeye Drive. By three hours after the spill, which occurred at 6:30 p.m., residents were permitted to return to their homes.

The entire residential area known as The Pines, estimated to contain 800 homes, had been ordered evacuated by Milpitas police. And the area, bounded by Capitol Avenue on the north, Main Street on the east and Montague Expressway on the south, was barricaded.

An evacuation center was established at Spangler Elementary School, 140 N. Abbott Ave., about two miles to the north. Rex Painter, a disaster director for the

See SPILL, Page 2A

United Press International

Frazier is one of 15 veterans who turned in their medals in San Francisco on Monday to protest licy in Central America and to show support for erans who are fasting in Washington, D.C.

He found that fewer stitutions were making to their normal quirements for minori-

r colleges accepted 76 f all students who e acceptance rate for ur-year colleges was 71

ghly selective campuses League and similar that reject more than half of all applicants — blacks fared better than others: 53 percent of blacks won admission compared with 42 percent of all those who applied.

Asian students had a higher rejection rate than the overall average, but they also tended to apply to the most selective institutions, Breland said. Sixty-two percent of all applicants to private colleges were accepted, but only 48 percent of the Asian students.

Milpitas tract emptied in wake of toxic fumes

SPILL, from Page 1A

American Red Cross of Santa Clara County, told those at the school at 9:35 p.m. that they could leave.

A County Transit bus was dispatched to carry residents who had walked to the school back to their homes.

Milpitas firefighters issued no statement Monday night, and Milpitas police said only that an "unknown type of gas release took place." The department released no details on the spill or evacuation.

At 9:40 p.m., a police spokesman said that two "sweeps" of the area had been made and no toxic leak could be located. He said four people had been released from hospitals after treatment for headache and eye irritation.

Painter said it was not certain what had been spilled or leaked, but that officials speculated it was chlorine. He said the area was decontaminated.

An industrial area immediately to the west and upwind of The Pines area also was evacuated. According to emergency radio dispatches, four or five Xicor workers were taken to hospitals.

Four were hospitalized minutes after the spill. Two went to Alexian Brothers Hospital and two to Kaiser Permanente Medical Center in Santa Clara.

The fifth patient, a woman resident on Puccini Avenue near Eastridge Shopping Center in San Jose who had inhaled the fumes while at work but had driven home, became ill an hour later. She was taken to Santa Clara Valley Medical Center after becoming "very ill with a bad poisoning," according to a radio dispatch.

Early Monday evening, a Xicor security guard said approximately 80 employees were evacuated and that only he and another guard remained at the plant. He said employees of surrounding industrial buildings also were evacuated, but would not discuss the incident.

Dan W. Daniel, whose home on Bluespruce Court is in The Pines, said he was in bed watching football when he heard a police patrol car drive by, the officer using a loudspeaker to order residents to leave.

"It was shortly after 7 p.m.," Daniel said. " . . . Everybody else was leaving their homes. I put on my shoes and my wife and I left, after checking next door to make sure the two boys there had been evacuated."

The Daniels, who drove to their son's San Jose home, said the evacuation was orderly. However, another resident, who declined to give his name, said no announcements were made at their end of the tract along Capitol Avenue.

"I saw a barricade but just drove around it and came on home," said the resident at 8 p.m. "People are standing around in the streets, just milling around. No one is leaving. We all thought there had been an escape from Elmwood Rehabilitation Center."

At Spangler School, Troy Anderson, 64, said that when he heard the police loudspeaker, "at first, I didn't pay too much attention. I thought it might be a political thing, then I understood something about closing the house. I was going to stay there, but called the police department and they said we should evacuate."

Bill Clark, 30, was in his house and watching television and did not hear any announcements. His wife, Judy, 26, en route home from work, slipped through a barricade and went home.

She picked up her husband and their two German shepherd dogs and went to Spangler School.

Another evacuee there, Sandra Keenan, said, "I dont think this is good. They should tell us something. There's no police, no officials at the school. They're not letting anyone know a thing. Just the newsmen are out here."

Sheriff Robert Winter was speaking at a political debate when he learned of the evacuation, which was immediately south of Elmwood Rehabilitation Center. He left the meeting and ordered an emergency plan to evacuate Elmwood, if necessary, said sheriff's Lt. T.K. Davis.

Winter's plan called for the commandeering of 50 County Transit District buses and the activation of the sheriff's fleet of 24 buses.

Mercury News Staff Writer Brad Kava contributed to this report.

17. EXHIBIT: "CHLORINE WAS GAS THAT LEAKED AT HP PLANT" (1980)

Source: San Jose Mercury News (Oct. 31 1980), with imaging courtesy of the California Center for Public Environmental Oversight (CPEO) archives.

San Jose Mercury, Friday, October 31, 1980

Chlorine was gas that leaked at H-P plant

By Katherine Ellison
Staff Writer

A chemical leak at a Hewlett-Packard Corp. Cupertino plant that sent three employees to the hospital Tuesday turned out to be chlorine, a company spokesman said Thursday.

Three women exposed to the gas were taken by ambulance to the Kaiser Hospital in Santa Clara, where they were tested and released by Tuesday afternoon after suffering from nausea, vomiting and sore throats. Six others who worked in the room and had less serious complaints were screened at a clinic.

The gas apparently escaped because of a faulty exhaust system in the room, where the nine employees combine silicon chips in a process involving heat and a "long list of chemicals," said Hewlett-Packard spokesman Roy Verley.

Some of the chemicals involved are extremely toxic in even small doses, Verley said.

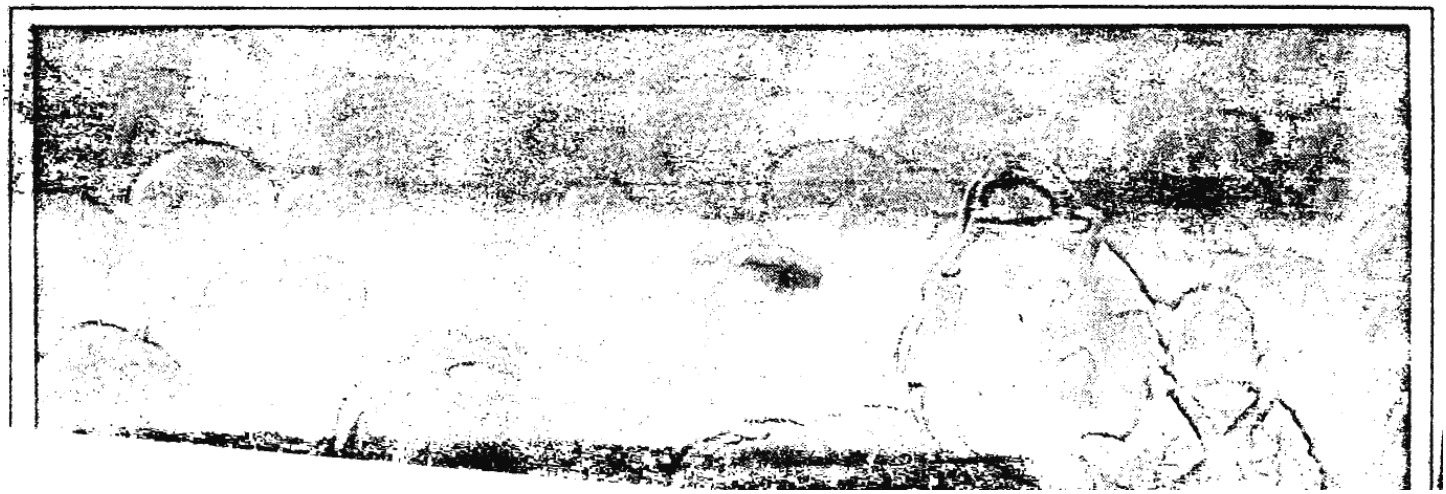
However, chlorine is harmful only in very large or significant and steady doses, said John Seabury, industrial hygienist for the Occupational Safety and Health Administration in Sacramento. It also is detectable at very low levels, he said, adding that, "I don't see how anyone could work in a chlorine atmosphere for very long without knowing it and being extremely uncomfortable."

The workers were cleared out of the room at the Cupertino Integrated Circuit operation plant at Pruneridge Avenue and Wolfe Road moments after they detected a strange odor a little before 8 a.m. Tuesday.

Verley said the faulty furnace is being repaired, and OSHA has been notified of the incident. "These are all standard procedures we go through in cases like this, which are really uncommon," he added.

Leland Anderson, OSHA district manager in San Jose, said the incident was not serious enough to require investigation. "We require five or more workers to be seriously injured or someone to be hospitalized before we go in. If there is a serious injury, the doctor treating any victims must notify us," he said.

One of the workers who went to Kaiser on Tuesday said she and her colleagues have been complaining of a strange smell in their work room for "about three weeks," but that nothing has been done. Verley confirmed that a report was made to a company safety officer within the past two weeks, but said the officer couldn't find an odor then.



F. Exhibit: Magazine and Academic Articles

18. Exhibit: "Where the Chips Fall" (NIEH; 1999)[1]

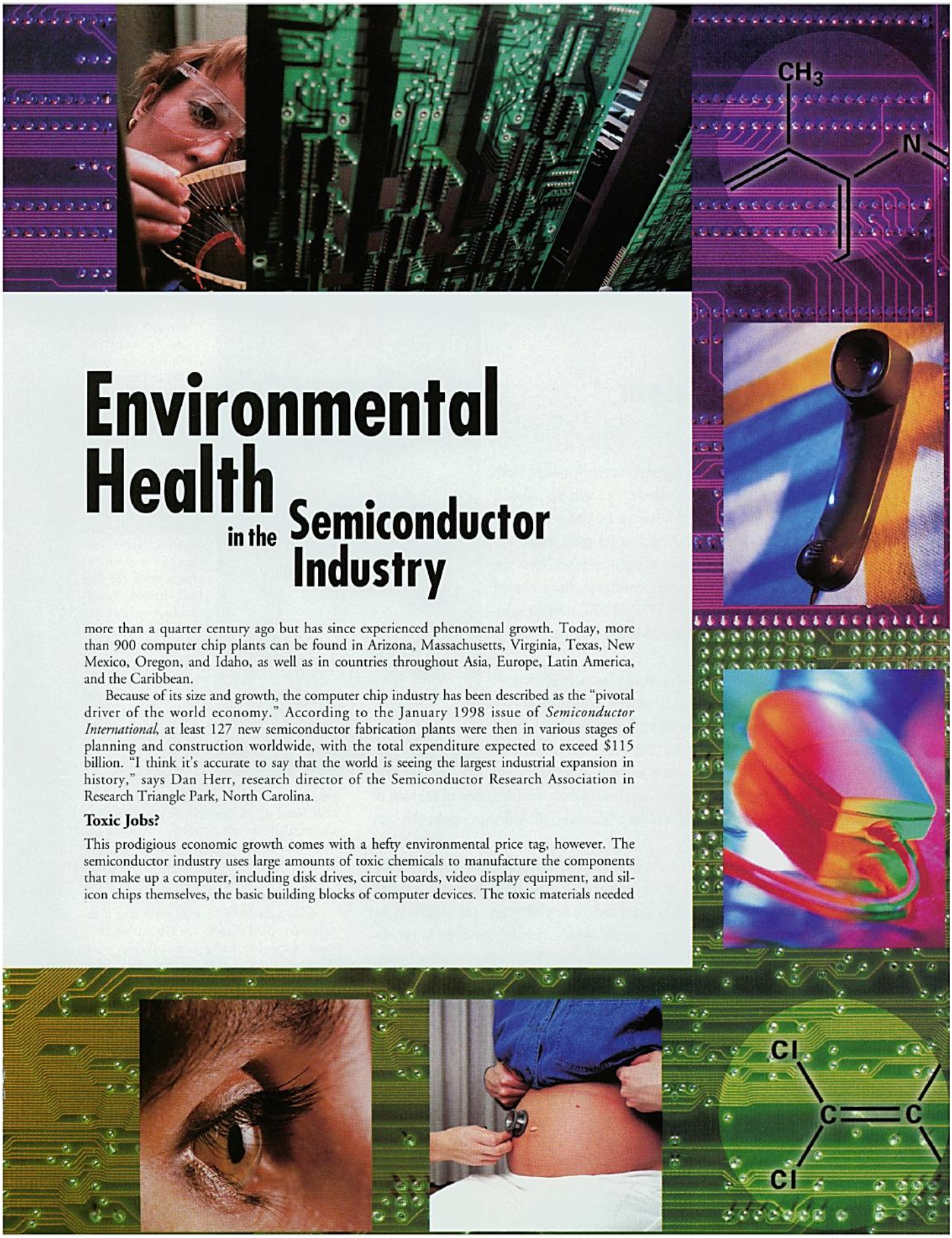
Where the Chips Fall:

In 1996, 128 former IBM workers and their families, including those of 11 workers who have died of cancer, filed suit against the chemical manufacturers Eastman Kodak Company, Union Carbide Corporation, J. T. Baker, and KTI Chemicals, claiming they had suffered adverse health effects, including cancers and miscarriages, as a result of exposure to hazardous chemicals on the job. Although worker's compensation laws in New York State prevent the former employees from suing IBM directly, their children can sue, and 16 of them have filed a lawsuit against the company, claiming birth defects from *in utero* exposure to these same chemicals.

The New York case is one of three current major environmental health lawsuits involving the semiconductor industry, also known as the computer chip industry. In San Jose, California, another group of former IBM employees (who developed cancer) and their families have filed suit against the company and its chemical suppliers, alleging that workers at the local IBM plant were exposed to unhealthy doses of cancer-causing chemicals over three decades. Meanwhile, 70 women in Scotland are suing another U.S. company, the Santa Clara, California–based National Semiconductor Corporation, claiming they too were exposed to cancer-causing chemicals.

The lawsuits are bringing high-profile attention to the environmental and occupational effects of what is now the world's largest and fastest growing manufacturing sector. The $150 billion semiconductor industry began quietly in Santa Clara County's Silicon Valley a little

[1] Source: Ron Chepesiuk, *Where the Chips Fall: Environmental Health in the Semiconductor Industry,* Environmental Health Perspectives , The National Institute of Environmental Health Sciences, Sep., 1999, Vol. 107, No. 9 (Sep., 1999), pp. A452-A457, https://www.jstor.org/stable/3434648



Environmental Health in the Semiconductor Industry

more than a quarter century ago but has since experienced phenomenal growth. Today, more than 900 computer chip plants can be found in Arizona, Massachusetts, Virginia, Texas, New Mexico, Oregon, and Idaho, as well as in countries throughout Asia, Europe, Latin America, and the Caribbean.

Because of its size and growth, the computer chip industry has been described as the "pivotal driver of the world economy." According to the January 1998 issue of *Semiconductor International*, at least 127 new semiconductor fabrication plants were then in various stages of planning and construction worldwide, with the total expenditure expected to exceed $115 billion. "I think it's accurate to say that the world is seeing the largest industrial expansion in history," says Dan Herr, research director of the Semiconductor Research Association in Research Triangle Park, North Carolina.

Toxic Jobs?

This prodigious economic growth comes with a hefty environmental price tag, however. The semiconductor industry uses large amounts of toxic chemicals to manufacture the components that make up a computer, including disk drives, circuit boards, video display equipment, and silicon chips themselves, the basic building blocks of computer devices. The toxic materials needed

to make the 220 billion silicon chips manufactured annually are staggering in amount and include highly corrosive hydrochloric acid; metals such as arsenic, cadmium, and lead; volatile solvents such as methyl chloroform, toluene, benzene, acetone, and trichloroethylene; and toxic gases such as arsine. Many of these chemicals are known or probable human carcinogens.

Statistics published in April 1999 by the U.S. Department of Labor's Bureau of Labor Statistics show that semiconductor workers have a rate of occupational illnesses resulting in lost workdays that is twice as high as that of workers in other manufacturing sectors. Bruce Fowler, director of toxicology at the University of Maryland in College Park, has been studying some of the toxic chemicals used in chip manufacturing. Fowler believes the health problems linked to such chemicals may be the result of exposures to mixtures of chemicals. "The industry doesn't have one definitive manufacturing process and you can't point a finger at one particular compound because some of the plants in the industry use as much as 300 chemicals," Fowler says. In addition, many of the manufacturing processes take place in closed systems, which means that exposures to harmful substances are often difficult to detect unless monitored on a daily basis. The major routes of exposure of concern are inhalational and dermal exposures. Although workers wear protective clothing from head to toe, researchers are concerned that recycling the air in so-called "clean rooms" (where microchips are made) exposes workers to toxic chemicals.

Lee Neal, a public relations director of safety, health, and environmental affairs with the San Jose–based Semiconductor Industry Association, says it's false to assume that workers are automatically exposed to the chemicals used in the semiconductor industry. "The electronics industry employs state-of-the-art process equipment and chemical transfer systems that limit or prevent physical exposure to chemicals," he says. "Besides, many of the chemicals found in our industry are used in other industries, and we aren't seeing major health and safety problems in their environments."

Still, a study of 15 semiconductor manufacturers published in the December 1995 issue of the *American Journal of Independent Medicine* showed that women working in silicon wafer manufacturing rooms who handled chemicals including glycol ethers suffered a 14% miscarriage rate, compared to women in the industry who did not work in fabrication areas, who suffered a rate of 10%. The study was conducted by researchers at the University of California at Davis and was cosponsored by the semiconductor industry. According to Neal, these findings were the primary basis for removal of glycol ethers from the workplace by the semiconductor industry.

The Obsolete Computer Problem

Working for Solutions

It's not just computer chips that present environmentally related health problems. Computers themselves are manufactured with and include a number of hazardous materials. Of major concern are platinum in circuit boards, copper in transformers, nickel and cobalt in disk drives, barium and cadmium coatings on computer glass, and lead solder on circuit boards and video screens. Obsolete computers also require special (and often expensive) handling to safely dispose of them. Between 1998 and 2007, computer industry experts predict that 45 million computers will be junked as new technology replaces the old.

Concerned about computer-generated hazards, some countries have moved to legislate their disposal. Germany, for example, passed a law in 1994 that requires computer makers to take back old machines. In the United States, the Environmental Protection Agency (EPA) has established guidelines for disposing of obsolete computers. "It used to be that there was no industry for recycling old computers, but not anymore," says Lynn Goldman, former assistant administrator of the EPA Office of Prevention, Pesticides, and Toxic Substances, although she concedes that such recycling is not yet widely available.

Computer obsolescence could create a waste crisis, but an emerging recycling industry in the United States, Canada, and other industrialized countries could siphon the much-needed, if slightly used, technology along to schools, as well as give it away to nonprofit groups and charities. In the United States, there are about a dozen large nonprofit computer recyclers. One of the largest, the Computer Recycling Center in Santa Clara, California, gave away 30,000 computers during a three-year period.

Internationally, a campaign to deal with obsolete computers has been jointly launched by the International Campaign for Responsible Technology and Clean Production Action. The campaign seeks to clean up the computer life cycle by focusing on the producer's responsibility for clean product design and for taking back computers at the end of their usefulness. The group's Clean Computer Campaign program statement declares, "We are forming a broad-based new campaign to shift [the] costs back to the producers in order to create economic incentives to place greater priority—and resources—on cleaning up the entire computer life cycle."

The most recent controversy surrounding semiconductor workers and miscarriages concerns the National Semiconductor Corporation plant in Greenock, Scotland. Seventy women have recently filed suit against the corporation, claiming they developed cancer and reproductive problems as a result of their work at the plant. The company has defended its health record in a statement published in the 27 May 1999 issue of the *Journal of Commerce*, stating, "We believe the lawsuit is without merit. An individual's health is affected by various factors, such as family history, eating, drinking, and smoking habits."

Little is known about the long-term health consequences of exposure to chemicals by semiconductor workers. Indeed, there has never been a study of cancer rates among U.S. semiconductor workers. "We know, in general terms, that roughly 10% of all cancer is caused by worker exposure, but there is no way to prove in an individual case that a chemical caused that particular cancer," says Joseph LaDou, director of the Division of Occupational and Environmental Medicine at the University of California at San Francisco. "Absolutely nothing is known of long-term exposure to low levels of these chemicals and absolutely nothing is known about long-term exposure to low levels of combinations of chemicals and reaction products," says LaDou. "That's what concerns us about the electronics industry." He adds, "It's often been said that here is a technology of the 21st century in which the toxicology of its manufacturing materials is still in the 19th century."

Several scientists, including Fowler and LaDou, have gone on record to predict that the cancer rate in the computer chip industry will rise significantly in the future because the industry is relatively new and cancer can take as long as 20–25 years to show up in populations of exposed workers. "We are going to see more reports of cancer among computer chip workers during the next decade," says Fowler.

For the semiconductor employees who are party to the lawsuits against the industry, the future is now. In 1995, Keith Barrack, one of the plaintiffs in the New York case, felt a sharp pain in his groin while playing a pickup game of basketball. When Barrack touched his left testicle, he felt a lump the size of a quarter. A visit to the doctor the next day revealed he had testicular cancer. Barrack, who had worked at the IBM semiconductor plant in East Fishkill, New York, between 1986 and 1990, prided himself on being an athletic type who didn't smoke or drink and who worked out regularly. He believes his cancer is due to chemical exposures he received while working at the IBM plant.

Debbie Drew, another plaintiff and worker at the plant, claims that she suffered occupationally induced brain tumors and is paralyzed as a result of surgeries to remove them. Drew left the semiconductor industry in 1989. Her husband, Henry, adamantly believes that the U.S. government, particularly the Occupational Health and Safety Administration (OSHA), should have played a stronger role in monitoring the semiconductor industry in the 1980s to protect worker health and prevent safety problems. "I wrote a letter to OSHA and never got a reply," he says. "I can recall officials from that agency coming to inspect the plant only once or twice. Given the number of people getting sick, you would think that OSHA would have taken a closer look."

Spokesmen for both OSHA and the semiconductor industry are quick to defend themselves against charges that their organizations have helped expose semiconductor workers to dangerous chemicals and occupational health and safety hazards. "OSHA's primary goal is to save lives, prevent injuries, and protect the health of America's workers and that certainly includes those employed in the semiconductor industry," says Rick Fairfax, OSHA's director of compliance programs. "In the semiconductor type of workplace, exposures only occur during unpredicted, upset conditions that can result in significant short-term exposures to workers but [that] are difficult to predict and monitor. While [OSHA] does monitor [the semiconductor] industry and conducts inspections, the industry typically doesn't show up on any OSHA programmed inspection targeting system due to its relatively low injury and illness rate."

The U.S. Bureau of Labor Statistics has routinely portrayed the semiconductor industry as one of the safest, with a worker illness rate of about one-third of the average of all manufacturers. "From what I've seen, the semiconductor industry takes safety very seriously," says Don Lassiter, a health care consultant to the semiconductor industry who has worked for OSHA and the National Institute for Occupational Safety and Health (NIOSH). "It's a model of what a manufacturing industry should be."

David P. Stangis, environmental health and safety regulatory issues manager at the Santa Clara offices of Intel Corporation, the semiconductor industry giant that enjoys 88% of the market share, says that from Intel's perspective, it is inappropriate to comment on specific cases involving employees. He says, "The personal stories . . . are tragic and we empathize with the employees and their families; however, using them to characterize an entire industry goes against the facts."

William DeProspo, a lawyer with the DeProspo, Petrizzo, Longo, and Bartlett law firm in Goshen, New York, which is representing Barrack, Drew, and the other plaintiffs in the New York IBM suit, dismisses arguments that the chemicals are not the cause of his clients' injuries. "Here we have plaintiffs who were in excellent health, not allowed to smoke on the job, and had access to great company [health] benefits. I have such a clean class of plaintiffs that I couldn't have handpicked better clients," he says.

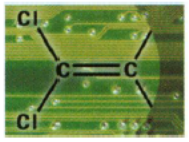
Chipping Away at the Environment?

Potential human health effects are not the only adverse side effect of the semiconductor industry. According to industry critics, the manufacture of semiconductor technology can produce negative consequences for the environment as well. JoLani Hironaka, executive director of the Santa Clara Center for Occupational Safety and Health, which provides assistance, training, and advocacy support to low-wage computer chip industry workers in Santa Clara County, says, "There has been a tremendous growth in the number of industries manufacturing chemicals and other materials for use at computer chip plants and in the amount of waste generated in the production process." For example, according to an article in the May–June 1997 issue of *E/The Environmental Magazine*, the manufacture of just one eight-inch computer wafer containing hundreds of chips requires on average 27 pounds of chemicals and 29 cubic feet of hazardous gases. Manufacturing this same wafer also produces 9 pounds of hazardous waste and 3,787 gallons of wastewater, which then requires extensive chemical treatment to remediate.

The semiconductor industry's environmental impact is well documented. Consider that Silicon Valley is the home of 29 U.S. Environmental Protection Agency (EPA) Superfund National Priorities List sites—more than any other county in the United States—and that more than 100 different contaminants have been measured in hazardous amounts in the local drinking water. Historically, much of the liquid waste from chip making in Silicon Valley was stored in underground tanks, many of which leaked toxic waste into groundwater supplies.

The designation of Superfund sites in the 1970s and 1980s closed dozens of drinking water wells in Silicon Valley. For example, in 1982 California state officials closed a drinking well near the Fairchild Semiconductor Corporation's South San Jose Plant after it was discovered that nearby residents had been drinking water contaminated with toxic solvents, including 1,1,1-trichloroethane and

Chemicals of Concern in the Semiconductor Industry



Acetone
- Inhalation of moderate to high levels causes nose, throat, lung, and eye irritation; confusion; and possibly coma
- Ingestion of very high levels causes unconsciousness and damage to the skin in the mouth
- Long-term exposure in animals causes kidney, liver, and nerve damage; increased birth defects; and lowered ability to reproduce in males

Arsenic
- At low levels causes nausea, vomiting, diarrhea, decreased production of red and white blood cells, abnormal heart rhythm, and blood vessel damage
- At high levels over 60 parts per million causes tissue damage (nerves, stomach, intestine, skin) and may be fatal
- Chronic exposure causes lung cancer
- Known human carcinogen

Arsine
- Causes headache; malaise; weakness; dizziness; dyspnea; abdominal and back pain; nausea; vomiting; jaundice; peripheral neuropathy; and damage to the blood, kidneys, and liver

Benzene
- Causes damage to bone marrow and decreased production of red blood cells leading to anemia, excessive bleeding, immune system effects, increased chance of infection, reproductive effects, and leukemia
- Known human carcinogen

Cadmium
- Causes lung damage, renal dysfunction, hepatic injury, bone defects, hypertension, reproductive toxicity, and teratogenicity
- Reasonably anticipated to be a human carcinogen

Hydrochloric Acid
- Highly corrosive
- Causes severe eye and skin burns and conjunctivitis; prolonged or repeated skin contact may cause dermatitis
- Inhalation causes severe respiratory irritation with coughing, burns, breathing difficulty, and possible coma
- Ingestion causes digestive tract irritation, abdominal pain, vomiting, and possible death
- Also causes photosensitization in certain individuals and circulatory system failure

Lead
- Damages kidneys and the immune system
- Causes premature birth; low birth weight; decreased mental ability; learning deficits in children; decreased reaction time; weakness in fingers, wrists, and ankles; anemia; memory effects; spontaneous abortion; and damage to the male reproductive system

Methyl Chloroform
- Causes headache; CNS depression; poor equilibrium; eye, nose, throat, and skin irritation; and cardiac arrhythmia

Toluene
- Long-term exposure to low to moderate levels causes tiredness, confusion, weakness, memory loss, nausea, and hearing loss
- Inhalation of high levels over a short period of time can cause permanent damage to the brain and speech, vision and hearing problems, loss of muscle control, and poor balance
- Causes neurological problems and retarded growth in children
- Reasonably anticipated to be a human carcinogen

Trichloroethylene
- Irritates the eyes and respiratory tract
- Inhalation causes dizziness, sleepiness, and headache
- Chronic exposure causes speech and hearing impairment, kidney disease, blood disorders, stroke, anemia, diabetes, and skin rashes
- Probable human carcinogen

1,1-dichloroethene, from a Fairchild underground storage tank. In 1984, the California State Department of Health Services released an epidemiological study concluding that these residents had suffered a cluster of birth defects and miscarriages. In 1986, Fairchild agreed to pay an undisclosed sum to more than 500 claimants in the contaminated local neighborhood. Toxic gases can pose a problem as well. In 1992, for example, one San Jose neighborhood had to be evacuated after toxic smoke poured out of a local chip-manufacturing plant.

Chlorofluorocarbons (CFCs), chemicals that deplete atmospheric ozone, were once used to clean computer chips, but by 1995 IBM, Intel, Toshiba America, Hewlett-Packard Company, and other computer companies reported that they had eliminated CFCs from their manufacturing process in accordance with the Montreal Protocol, an international agreement for the phase-out and eventual elimination of all CFCs. Stangis says that Intel has a program that identifies and implements substitutes for CFCs as they become feasible.

According to Lynn Goldman, a visiting scholar at the John Hopkins University School of Public Health in Baltimore, Maryland, who served as assistant administrator of the EPA's Office of Prevention, Pesticides, and Toxic Substances from 1993 to 1998, the semiconductor industry has put its worst outdoor environmental problems behind it. "In the early 1980s and before, Silicon Valley had a lot of problems with solvents and cleaning up toxic waste, but today the industry is monitored as closely as any sector in the economy, and its environmental record has improved considerably," she says. "The main concerns today are worker exposures and conditions in the clean rooms."

When the Chips Are Down

The semiconductor industry aggressively defends itself against the charge that it has been an irresponsible steward of the environment. Industry spokespersons maintain that electronics manufacturers are working hard to remove from the manufacturing process the toxicants that pose dangers to worker health and the environment. They point out, for example, that liquid wastes are no longer stored in underground tanks and that ethylene-based glycol ethers have been largely phased out of the industry after a 1992 IBM-sponsored study of workers at two of its plants showed that one-third of the female employees who were exposed to the chemicals had miscarriages.

The semiconductor industry has also established several research partnerships with the government and academic sectors

during the past 20 years. In 1982, the Semiconductor Research Corporation was established by the Semiconductor Research Association to serve as a nonprofit industry cooperative. Today, it spends $3 million annually on environmental research. "It's good business to research ways of reducing toxic chemicals and pollutants used in the industry," Herr says. "That's the only way we were going to advance semiconductor technology and stay competitive." In 1987, SEMATECH, a nonprofit consortium of semiconductor manufacturers based in Austin, Texas, was formed with an annual budget of $200 million, half of which originally came from the U.S. Department of Defense. According to Ted Smith, executive director of the San Jose–based Silicon Valley Toxic Coalition, a public interest organization that has monitored the environmental record of the semiconductor industry since 1982, 10% of the budget is earmarked for research on environmental technology due to a successful lobbying effort led by the Campaign for Responsible Technology, a national labor–environment organization.

In November 1995, Intel's premier chip-manufacturing facility in Chandler, Arizona, was selected to participate in an EPA program called Project XL, which allows semiconductor manufacturers to develop what the federal agency hopes will be innovative, proactive approaches to environmental compliance and cleanup in partnership with the EPA and the public. As part of the program, in November 1996, Intel pledged to work toward developing "equal or better environmental standards than the previous command-and-control regulatory methods." In January 1997, the company entered into a joint contract with the EPA and the Arizona Department of Environmental Quality to begin this process.

Project XL allows semiconductor manufacturers to avoid what they consider to be costly and time-consuming permit reviews by replacing the existing regulatory structure with an alternative cooperative operating agreement. Critics, including several labor, environmental, and public interest organizations across the United States, consider the program to be a sweetheart deal for environmental deregulation, one that undercuts the hard-won laws protecting the environment. "The agreement doesn't deliver on President Clinton's promise to make corporations like Intel more accountable to their workers and to the communities in which they operate," says Smith. "The agreement is going to expose workers and the people of Arizona to increased toxic chemicals."

But the U.S. government has strongly defended the agreement. Because the basis of Intel's Project XL agreement is a single multimedia environmental operating permit for its Chandler facility, both the EPA and Intel expect to save time and money by linking together water, air, and other operating permits that are currently issued under a variety of jurisdictions. Officials say there will be other benefits as well. For example, Project XL is expected to provide a boon to construction of wafer manufacturing facilities and to provide Intel's Chandler facility with a greater measure of flexibility in its manufacturing process. Felicia Marcus, the EPA's Region IX administrator, says, "This is where the future of environmental protection lies—in the cooperation between industry, regulators, and communities to protect the public health and the environment in a commonsense manner that shows that a strong environment and economy go hand in hand."

Recently, the semiconductor industry has been criticized for failing to support proposed environmental and occupational health research projects that target environmental problems in the industry. Says LaDou, "When ideas for studies have been advanced, industry representatives have found every means available to point out problems and, often, the impossibility of moving ahead."

In 1997, the California Department of Health Services, with the support of the EPA, developed a proposal to utilize California health registries as a way of studying the rates at which disease occurs among electronics workers and their families. The project would have developed a record-keeping system for the semiconductor industry to monitor and identify the incidence of cancer and birth defects among its workers. Access to employee records was vital to the project, but by January 1998, the industry had publicly refused to participate. Tim Mohin, an Intel spokesperson, told the press in a widely reported statement, "To participate in a project like this would be like giving discovery to plaintiffs. I might as well take a gun and shoot myself."

On 27 January 1998, LaDou wrote a letter to NIOSH director Linda Rosenstock, asking that the agency intervene in the matter and arguing that NIOSH "can provide our first real opportunity to see the prevalence and incident rates of cancer and birth defects in electronics workers." Three weeks later, Rosenstock replied that "NIOSH has the authority to compel the production of NIOSH field research and surveillance programs," but added that the agency "lacks the authority to compel companies or industry sectors to participate in research or surveillance activities among third parties." According to Stangis, however, a team of industry health and safety officials have met several times with the California Department of Health Services in "the mode of open engagement to discuss issues surrounding press claims, worker protection, and health research."

The intense economic competition in the electronics industry is accelerating the pace at which the types of tools and materials used in the semiconductor manufacturing process change. In the mid-1970s, the typical cycle of a new technology from research to full manufacturing took six to eight years. Heading into the 21st century, the industry is now developing a new chip-making process about every two to three years. Intel reports that each of its computer chip factories makes an average of 30–60 significant changes each year in its operations in order to ramp up production of new types of computer chips. But industry critics say that while hundreds of new chemicals are being introduced into commerce annually, adequate toxicological assessments almost never precede their introduction into manufacturing settings. "One can say that the workers are being used as guinea pigs," Smith charges.

These problems concern the semiconductor industry as well, say industry officials, who believe that the process development stage offers a prime opportunity for environmental improvement. "We are setting our environmental goals at the beginning of each development cycle and working closely with suppliers of tools and chemicals," Stangis says.

As for monitoring, Goldman says, "The industry is so innovative that every time it changes equipment it has to apply for a new permit from the federal government." But despite all of the permitting activity, community members and workers do not trust that the monitoring is sufficient. Goldman says this suggests "that we need to consider alternative approaches to environmental regulation for this industry, and perhaps others as well, that can provide more flexibility for industry and more accountability for the public and workers."

Ron Chepesiuk

19. EXHIBIT: "POISONS IMPERIL SILICON VALLEY'S 'CLEAN' IMAGE" (1984)

Source: New York Times, Nov. 10 1984, /https://www.nytimes.com/1984/11/10/us/poisons-imperil-silicon-valley-s-clean-image.html

The New York Times

POISONS IMPERIL SILICON VALLEY'S 'CLEAN' IMAGE

By David E. Sanger

Nov. 10, 1984

From a distance, Silicon Valley is the envy of every community seeking to lure high-technology industry.

Its myriad electronics companies, 330 in this small suburb of San Jose alone, employ more than 50,000 workers in what most people consider one of the nation's cleanest industries - no dangerous assembly lines, no belching smokestacks, no rivers turned yellow by pollutants.

But the microelectronics industry - in California and elsewhere - is scrambling to counter allegations that the reputation for cleanliness is a myth.

In a wave of legal actions, workers are charging they have suffered a range of health problems, some severe and some less so, from exposure to the toxic gases and chemicals that are critical to the manufacture of the semiconductors, or microchips, that drive modern computers.

"People think that just because semiconductor workers wear white suits in dust-free rooms, the industry is clean," said Dr. Joseph LaDou, a professor of medicine at the University of California at San Francisco.

Dr. LaDou, who has studied occupational health issues in the electronics industry for several years, added: "It's simply not true. I would not say we have an epidemic, but some of the numbers are shocking."

At a time when occupational hazards have become a topic of increasing concern and study in a wide range of traditional industries, the semiconductor business - one of the few growth industries in the United States - has been virtually ignored, experts say. In part, they speculate that is because attracting and keeping high- technology companies has become a hot political and economic topic in many communities.

Already, in fact, these issues appear to have become enmeshed in the health debate about what safety standards, if any, should be imposed on high-technology manufacturing. Some state officials say privately that because of enormous pressure from the industry, they have been discouraged from pursuing investigations that threaten to tarnish the image of cleanliness.

Industry officials do not dispute that workers regularly handle highly toxic gases, strong acids and potentially dangerous solvents. But most vociferously deny allegations that in the high-pressure, cutthroat competition to survive in Silicon Valley, worker safety has been neglected.

"I grew up in a coal mining town, and I can tell you this industry is cleaner than 99 percent of the others in America," Thomas D. Hinkelman, president of the Semiconductor Industry Association, said here recently. "There are people here in Silicon Valley with a predetermined agenda to prove otherwise," he said, citing the unions that have long attempted to organize workers in the largely union-free industry.

But privately, some industry executives concede that they are worried, particularly by figures gathered by California's own Division of Labor Statistics. Based on claims filed for workers' compensation benefits, those statistics suggest that the incidence of work-related illnesses among semiconductor workers is triple the average for all of the state's manufacturing workers. And over the last four years, the illness rate for semiconductor workers has consistently exceeded the rate for workers in the mining, construction, metals or chemicals industries.

For example, of the 75,000 workers' compensation claims filed for injuries and illnesses in 1983 for all of California's manufacturing industries, about 7 percent were for illnesss. But of the 1,100 claims filed by semiconductor workers, almost one- quarter were for illness.

The numbers are still relatively small - about 100 systemic poisonings, mostly inhalation of toxic gases, were reported in California last year - and the Semiconductor Industry Association has questioned whether the workers exposed to toxic materials actually suffered any ill effects. The

industry group has already begun its own study of the cases, although some doctors and industry critics doubt the association's objectivity.

Assessment Is Difficult

Assessing just what kind of dangers face semiconductor workers, and how serious they are, is difficult. Reports abound of accidents that cause acid burns, poisoning, hair loss, disorientation and lung irritations, but most of the problems seem short-lived.

But there is the case of Judy Washington, a 35-year-old resident of South San Jose who left Advanced Micro Devices Inc., one of the big Silcon Valley semiconductor manufacturers, three years ago. She, like some other workers, says she now suffers from sudden, allergic reactions to chemicals.

Mrs. Washington said she began having allergic reactions to many common substances while she was still working at Advanced Micro. She was rushed to a medical clinic recently because a highway area she was working in for the state transportation department had recently been sprayed with a herbicide.

"I got a burning feeling in my throat, a rash all over, and I couldn't swallow or breathe," Mrs. Washington said. "That never happened" before she began working at Advanced Micro.

Some doctors are skeptical about claims of long-term side effects from exposure to toxics.

"Based on the cases I have seen, it just does not seem at all likely," said Abba I. Terr, clinical professor of medicine at Stanford Medical School and head of its allergy clinic.

But Dr. LaDou, the University of California professor, and others say that because no complete medical studies have been conducted, little is known about the long-term effects of being exposed to toxic materials in "fab areas," the industry's name for the clean rooms where semiconductors are made.

"This industry is just beginning to get to the age where veteran workers would begin to show symptoms," Dr. LaDou said, particularly symptoms of kidney disease and cancer, both of which have been linked to some of the gases used in fab areas. He added, "But so far, this is one of the few industries that has been spared occupational health scrutiny."

Massachusetts Death

Still, the debate has spread far beyond Silicon Valley. Workers and health officials in other areas where high-technology companies have been lured acknowledge uneasiness about the recent allegations. The concern is particularly potent in Massachusetts, the East Coast's high-technology center, where Federal officials are investigating the death in July of a worker for M/A-Comm, a maker of communications equipment and semiconductors.

The worker, John Zemotel, received a fatal dose of arsine gas, used commonly in chip making. The company says Mr. Zemotel had ventured into an unauthorized area and, for reasons that are still

unclear, deliberately took the safety cap off a canister of the deadly gas, a form of arsenic that was used in chemical warfare during World War I.

The arsine gas that killed Mr. Zemotel is only one, although perhaps the most toxic, of a host of gases and chemicals used to transform a wafer of pure silicon into hundreds of microchips, each jammed with thousands of tiny transistors.

In three shifts a day in Sunnyvale, for example, and in the neighboring cities of Mountain View, Santa Clara and San Jose, thousands of workers don their white "bunny suits," designed to keep pieces of skin and dust from ruining the delicate surface of the wafers.

Then the workers head into sealed- off rooms like Advanced Micro Devices' "Fab 8," where a filtration system removes particles - but not gases or fumes - from the air.

On a recent morning in Fab 8, a cluster of workers leaned over sinks where the enormously complex fabrication process begins. Their first task was to clean the wafer with acids. Minor burns frequently occur during this process, usually because workers have neglected to wear the necessary protective clothing, the company says.

Chemical Irritants Used

After the washing, the wafers are moved to another station, where they are painted with xylene, a chemical highly irritating to skin tissue, and a light-sensitive material called photoresist. The image of each layer of circuitry is then exposed on the wafer, just as a negative is used to form an image on photographic paper in a darkroom.

Other workers later use strong acids to dissolve, or etch, the circuit image on the silicon. Then the wafers are placed in closed furnaces where gases such as arsine and phosphine give the silicon unique electrical properties, creating the transistors.

While emergency showers and gas detection devices pervade Advanced Micro's fab areas, the company has faced repeated charges that workers have been harmed by exposure to toxic materials.

"For a while, Signetics took the brunt," said Edward J. Sawicki, former director of health and safety at the Intel Corporation, who now heads Microsafe Inc., a San Jose consultant called in by companies in the Valley on safety issues. "National Semiconductor had problems too," he added. "Now it seems to be A.M.D.'s time in the bucket."

In fact, 11 workers' compensation actions, and some related civil suits, are pending against Advanced Micro. One was brought by Anita Zimmerman, who says she will never forget the September morning in 1981 when a leak sprang in a fabrication area at the company.

"It was hydrochloric gas, and the place smelled like a swimming pool," she said. After some delay, she said, workers were evacuated, "but by that time we were getting sicker and sicker."

Later, Mrs. Zimmerman, who is 32 years old, found that "the insides of my nose were burned out" and she lost her voice for weeks.

She was sent to a nearby industrial medical clinic, which was established by area companies and which was the site of a recent protest march about worker health. At the clinic, she said, "they told me to gargle with warm sugar water."

As do other workers involved in disputes with Advanced Micro Devices, Mrs. Zimmerman said she often had difficulty breathing at night, and fears that her respiratory system could have been permanently damaged.

Cases Drag On

But while many such claims have been brought, most have dragged on endlessly. Doctors say the cases often hinge on descriptions of vague symptoms, often not explicitly linked to the chemicals used by workers.

"We had four workers here recently who said they were exposed to phosphine," said Dr. Donald Whorton, an Oakland physician, referring to workers for Semi-Processes Inc., a small San Jose company where workers were evacuated during a suspected leak in May. "It was the same old story: The company said it could not find a leak; the workers say they were exposed."

Regardless of whether there are injuries, the records emerging from the claims indicate that accidents are common in the industry. For example Amanda Hawes, a lawyer for eight of the workers who have filed workers' compensation complaints, produced an internal Advanced Micro document showing that Mrs. Washington's work area was evacuated 18 times between September 1980 and April 1981 because of leaks or small explosions.

Susan G. Tanenbaum, the company's director of employee relations, charges that the document was stolen off a supervisor's desk "and is not entirely accurate." Echoing the comments of other manufacturers, she insists that health and safety are "paramount" to the company.

While refusing to discuss individual cases, Mrs. Tanenbaum noted that the company settles 90 percent of its workers' compensation claims right away.

"When you look closely at the cases we are disputing," she said, "you will sometimes find that these people have illnesses, but they are not occupationally related. In other cases, we will demonstrate that they are not ill at all."

Some Programs Emerge

The bigger companies, such as Advanced Micro, seem to be taking health issues more seriously. They have instituted more detailed safety programs, more sensitive gas sensing devices, and sterner warnings to workers on safety rules.

But Mr. Sawicki, the former Intel official, and others say the risks are still high at small, struggling companies that are not profitable enough to devote funds to worker health. A survey conducted by the industry's own health consultant last year, Donald V. Lassiter, showed a significantly higher incidence of injuries and illnesses among workers in small semiconductor companies than among those in larger ones.

Definition of Illness In Dispute

Ultimately, the industry's image may be judged according to who wins a semantic battle. Around 1981, state officials began noting what they termed an unusually high number of occupational illnesses. About the same time, state officials say, companies began to reclassify their records of acid burns and brief exposures to toxic gases as "injuries," not "illnesses."

That change "had quite an effect on the data," said Karen Jones, research manager of the state's Division of Labor Statistics. Doctors say the move was deceptive, but the industry insists it was a reasonable interpretation of the Government's reporting rules.

The industry has also taken issue with the state's breakdown of workers' compensation claims. Mr. Lassiter contends that the "systemic poisonings" claimed by about 100 workers last year were "exposures," not poisonings, and "so minor that they do not cause illness or injury," Mr. Lassiter said.

Workers disagree, but say they are hopeful. "Unfortunately, worker safety in the Valley has been a process of trial and error," said a woman who has worked in fabrication laboratories at National Semiconductor and Advanced Micro Devices and who is now employed at a third semiconductor company. "It's getting better, but a lot of people may have been hurt in the meanwhile."

Many Solvent Tank Leaks Found

The semiconductor industry's worries about toxic materials are not limited to its fabrication laboratories. In the last three years, nearly every major Silicon Valley chip maker has discovered that underground tanks filled with solvents have leaked - sometimes into the local drinking water.

In October, the Environmental Protection Agency proposed adding 19 sites in the Valley to its Superfund list of sites the Government identifies as particularly in need of cleanup. It seems unlikely, however, that Federal funds will be used to rid the Silicon Valley sites of toxic waste.

Included on the list are plants owned by the International Business Machines Corporation, the Fairchild Camera and Instrument Corporation, the National Semiconductor Corporation, TRW Inc., Teledyne Inc., the Signetics Corporation, the Intel Corporation, Advanced Micro Devices Inc. and the Raytheon Company. All have begun voluntary cleanup operations that by most estimates have already cost about $70 million.

Problem Noticed in 1981

The problems came to light in 1981, when I.B.M. and Fairchild first found severe leaks in their underground tanks. The companies immediately removed the tanks and began drilling wells to determine the extent of the pollution, but some of the damage had already been done.

"There was one public well near the Fairchild site, and four near I.B.M.," said Donald Dalke, chief of the toxic division of California's Regional Water Quality Control Board. "We found contaminants in all of them," and they were closed.

About 500 residents have sued Fairchild, charging that the seepage of 1,1,1 trichloroethane, or TCA, into the water supply caused dozens of birth defects and cancers. But scientists still disagree strongly over whether TCA is a carcinogen.

The I.B.M. and Fairchild leaks now seem well contained. What worries residents, however, is the discovery of more than 100 additional leaky tanks in the last three years. One of the worst was at a Teledyne plant in Mountain View where solvents seeped into a number of private wells.

State officials say most companies are moving expeditiously to clean up the leaks. Under new local regulations, all manufacturers must now surround each underground tank with a cement "vault" that contains leaks, and monitor the tanks and the vaults constantly.

Joint Cleanup Under Way

But there have been hitches. Earlier this year the regional water board issued an order to Signetics, TRW and Advanced Micro Devices, all neighbors in Sunnyvale, to stop bickering over who was responsible for cleaning up a "plume" of underground pollutants apparently formed by leaks at all three plants. They are now cleaning it up jointly, and will decide later on how much each company must pay.

But recently, a debate has begun over whether the addition of the sites to the E.P.A. Superfund list - coming three years after the first leaks were discovered, and after cleanup efforts began - was justified. "It's an election year and the Reagan Administration wants to show it is being tough on the environment," said Brian Rector, an environmental engineer for Intel, which has three sites on the list.

Local environmentalists see it differently. "There is a dance going on," said Ted Smith, chairman of the Silicon Valey Toxics Coalition, a citizens group. "Many of these companies are doing just enough to keep the E.P.A. satisfied, no more."

A version of this article appears in print on , Section 1, Page 1 of the National edition with the headline: POISONS IMPERIL SILICON VALLEY'S 'CLEAN' IMAGE

20. EXHIBIT: TO 'WIN THE FUTURE,' THE U.S. NEEDS A SEMICONDUCTOR INDUSTRY THAT LEARNS FROM THE PAST (2024).

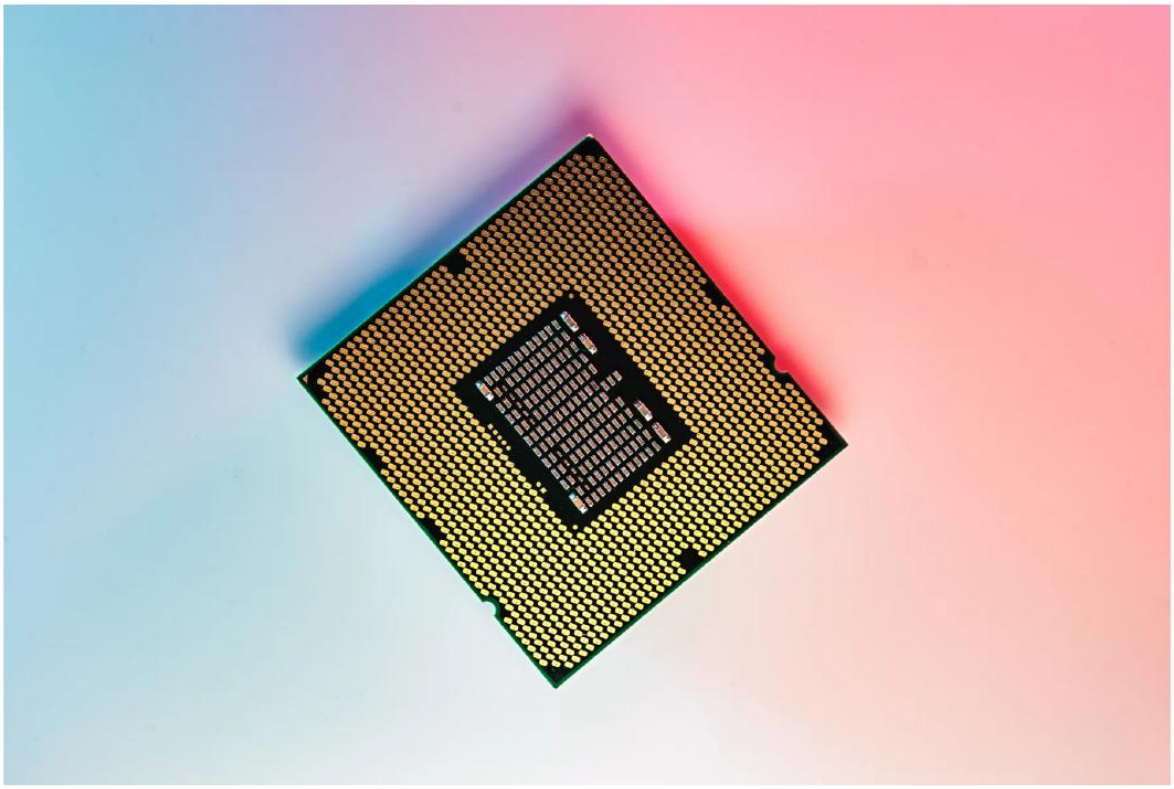
Source: Time Magazine, Jan. 3 2024,

TIME
Made by History

HISTORY MADE BY HISTORY

To 'Win the Future,' the U.S. Needs a Semiconductor Industry That Learns From the Past

8 MINUTE READ



Wayne Wilson—Getty Images

BY ADAM QUINN / MADE BY HISTORY

JANUARY 3, 2024 9:00 AM EST

The CHIPS and Science Act, which Congress enacted in 2022, promised $280 billion in funding to reverse a decline in U.S. semiconductor manufacturing (the nation went from producing 37% of the global supply of semiconductors in 1990 to just 10% in 2022). The White House hoped the legislation would make it possible for U.S. workers and communities to "win the future," through domestic, high-tech economic development. Just as they hoped, the new law ignited a race to build government-subsidized semiconductor factories ("fabs") on U.S. soil.

Yet, it's not all good. The rushed process has been rife with construction site injuries, safety concerns, and union avoidance. The semiconductor industry is also taking a toll on the environment. In 2022, semiconductor manufacturing comprised 11% of the U.S.'s non-domestic water usage even though production in the U.S. was low, and it generated massive volumes of greenhouse gas emissions and hazardous waste. These health, safety, and environmental problems raise doubts about whether the U.S. has learned from the industry's history. When the U.S. was a global leader in semiconductor production, the industry was wracked with occupational hazards, environmental injustices, and union-busting. As the Biden Administration pushes to rebuild the industry, it can learn from this history to ensure that what emerges is better for workers and the environment than the industry of the 1970s to 1990s.

Public memory usually credits the rise of American computing to inventive executives in their labs and garages. Yet this mythology ignores how the industry's rapid growth from the 1960s to the 1990s also relied on factory workers who produced crucial components. Their contributions came at great risk to their health. Computer chip production was a chemically intensive process, and required using caustic, understudied solvents to purify and process chip materials. Chemicals used in chip making like trichloroethane (TCE), ethylene-based glycol ethers, and 1,1,1-trichloroethane (TCA) were linked to maladies including chemical sensitivity, miscarriages, birth defects, and cancer.

Companies rarely let workers know about these hazards in the industry's early years, but many could tell chemicals were toxic from firsthand experience. For example, when Pat Lamborn worked on the National Semiconductor production line in the 1970s, she was never told about *any* hazards of chemicals she

worked with, including TCA. But when she experienced severe acne, her doctor told her it was chemically-induced chloracne.

Read More: The Only Way the U.S. Can Win the Tech War with China

When Lamborn first got her job at National Semiconductor, she had sought to unionize the workplace. Encountering barriers while personally experiencing surprising health effects from her chemically-intensive work, she instead joined the recently-growing occupational health movement. In 1978, Lamborn, lawyer Amanda Hawes, and industrial hygienist Robin Baker founded the Project on Health and Safety in Electronics (PHASE) to educate workers on the risks of semiconductor production. The next year they also launched the Electronics Committee on Safety and Health (ECOSH), which focused on organizing. Both organizations eventually became part of the Santa Clara Center for Occupational Safety and Health, or (SCCOSH).

These new groups aimed to address widespread health problems in the growing electronics industry. In 1978, electronics manufacturers in California had over four times the state's average rate of occupationally related illness.

PHASE and ECOSH researched the chemicals used in the industry, reached out to workers with a hotline and home visits, and provided them with health, legal, and labor organizing resources. After talking with hundreds of workers about their concerns, they developed a campaign to ban TCE, a common solvent used to produce chips that had already been linked to liver cancer and brain, kidney, and heart damage. The industry fought back, with the pioneering manufacturer Fairchild Semiconductor claiming that such a ban would be based on inadequate research and therefore premature. Nonetheless, by the early 1980s, the activist groups' campaign succeeded in massively reducing the legal limit of TCE usable in California.

In addition to limiting the use of TCE in California, occupational health groups worked in coalitions alongside labor unions at the federal, state, and local levels to secure workers' right to know about the chemicals they worked with. These efforts produced a range of new policies, from local ordinances in Silicon Valley to a new federal OSHA standard, that dramatically increased transparency around workplace chemicals.

Evidence was also starting to emerge that the chemicals involved in electronics manufacturing could pose risks to surrounding communities—something that drew far more attention than potential danger for employees. In the early 1980s, local residents in South San Jose began to notice unusually high rates of miscarriages and birth defects. They suspected the cause might be toxins in their water, because a spill of chemical solvents had recently spread 2,000 ft. from a nearby Fairchild Semiconductor fab. Research from county and state health officials soon bolstered their suspicions, revealing that residents in the polluted area experienced about twice as many miscarriages and three times as many birth defects as those in a nearby, uncontaminated control neighborhood (though it did not definitely state the cause).

In response to these environmental issues, SCCOSH joined diverse allies to launch the Silicon Valley Toxics Coalition, which mounted a grassroots campaign to monitor, clean, and prevent the industry's toxic waste. Their campaign shined a light on toxic spills and demanded cleanups. By 1984, Santa Clara County led the nation with 20 EPA Superfund cleanup sites, 16 of which stemmed from computer manufacturing. In 1986, Fairchild reached a multimillion dollar settlement with local residents in a case tied to the TCA spill (the company had also helped pay cleanup costs).

Yet, while semiconductor workers' awareness of chemical risks increased over time, the risks themselves did not simply disappear. Some chemical injuries were severe and unambiguous. For example, in 1986 Judy Ann Myer inhaled chloroethene vapors while trying to retrieve circuit boards from a four-foot-deep vat of solvent, passed out, and died in the vat.

Read More: The U.S. Releases New Plans In the Fight To Bring Chip-Making Back

Longer-term illnesses like cancer were more difficult to link to any particular chemical exposure, sometimes producing contentious legal battles. When 37-year-old Amy Romero, a former GTE Lenkurt semiconductor worker who was unemployed with pulmonary disease, cancer, and no health insurance, visited attorney Josephene Rohr in 1984, Rohr remarked that she seemed young to have cancer. Romero replied "Actually, all the women where I work have lost their uteruses." In disbelief, Rohr began speaking to other employees at GTE Lenkurt, discovering dozens with ovarian, uterine, colon, skin, breast, brain, and thyroid cancers. This discovery led to the largest workplace illness case in New Mexico state history. Between 1984 and 1992, 225 workers sued GTE

Lenkurt and its chemical suppliers. The companies denied responsibility for their ailments but settled three lawsuits for a total of $9 million.

The coalitions of health, environmental, and labor organizers achieved many partial successes throughout the 1980s and 90s. However, they realized that more systemic changes would be necessary to avoid repeated problems. They demanded the industry *only* use chemicals that had been adequately tested and reallocate research funding so that chips would not only become exponentially more efficient over time, but also exponentially safer. They also called for a unionized industry with democratically-elected health and safety committees in semiconductor plants. This, they believed, would give workers tangible power over their own safety rather than making them resort to lawsuits after harm was already done.

But these calls went for naught. The computer industry left its priorities and safety policies up to corporate managers, and it responded harshly to unionization efforts. At a time when union power was waning and employers were heavily exporting manufacturing jobs overseas, union drives in high-tech industries led to more firings and factory closures than union contracts.

Speaker of the House Nancy Pelosi (D-CA), alongside House Democrats, signs the CHIPS For America Act during a bill enrollment ceremony outside the U.S. Capitol July 29, 2022 in Washington, D.C. Drew Angerer—Getty Images

But things might be ripe for change in 2024. The CHIPS Act incentivizes returning computer manufacturing to the U.S., the National Labor Relations Board is far less tolerant of actions like the firing of union organizers, and the labor movement is experiencing a renaissance.

Once again, environmental and labor organizations are pushing for a safer, more worker friendly semiconductor industry. A new coalition of over 50 organizations, including the United Auto Workers, Communications Workers of America, and the Sierra Club, is now demanding phasing out hazardous chemicals, respecting semiconductor workers' right to organize a union, and negotiating with local communities to ensure new fabs support their needs. This coalition is insisting that the Biden administration act to "avoid the problems of the past."

And their activism exposes the truth: for American workers and communities to truly "win the future" as the administration hopes, lawmakers, regulators, and employers will need to learn from the past to become safer and more sustainable. These goals are not just technical but social; they cannot be attained with more advanced technology alone. History shows that safety and sustainability will require a far more disruptive idea: a union-friendly, democratized tech industry.

Adam Quinn is a PhD candidate in history at the University of Oregon, where he is writing a dissertation on the environmental and labor history of computers. He is a dissertation fellow with the Just Futures Institute/Center for Environmental Futures/Andrew W. Mellon Foundation. Made by History takes readers beyond the headlines with articles written and edited by professional historians. Learn more about Made by History at TIME here.

G. Exhibit: International Fire Code

21. Exhibit: Semiconductor Fabrication Facilities

2021 IFC Code and Commentary (IFC)

CHAPTER 27: SEMICONDUCTOR FABRICATION FACILITIES

Chapter 27: Semiconductor Fabrication Facilities

General Comments

The invention, development and exploitation of semiconductor technology has changed the world. Without integrated circuits, and the microchips (or "chips") they are composed of, the world of high technology would not exist. With the benefits of living in a high-tech age come some unique and pressing challenges. The manufacture of microchips is a complex, hazardous and demanding operation involving state-of-the-art design and manufacturing techniques, specially designed processing centers and a highly trained workforce. Despite these rigors, the dangers of the processes can neither be avoided nor ignored.

The manufacture of semiconductors and microprocessors has developed into its own industry within the last 30 years. The proliferation of computer technology has resulted in the incredible expansion of the semiconductor manufacturing industry. These sophisticated products require a special processing environment and rules to match the technology unique from other hazardous materials processes. Considering the unique and often acute hazards of many materials used in semiconductor processing, this industry has maintained a solid safety record.

Purpose

The requirements of this chapter are intended to control hazards associated with the manufacture of semiconductors. Though the finished product possesses no unusual hazards, materials commonly associated with semiconductor manufacturing are often quite hazardous and include flammable liquids; pyrophoric and flammable gases; toxic substances and corrosives. The requirements are concerned with both life safety and property protection. However, the *fire code official* should recognize that the risk of extraordinary property damage is far more common than the risk of personal injury from fire.

2021 IFC Code and Commentary (IFC)

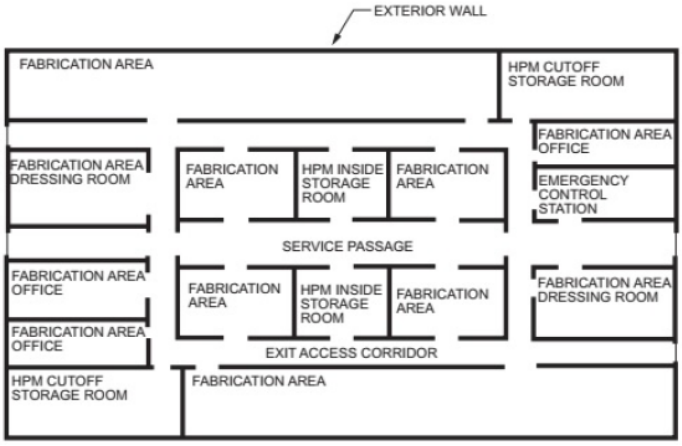
CHAPTER 27: SEMICONDUCTOR FABRICATION FACILITIES

SECTION 2701 GENERAL

2701.1 Scope.

Semiconductor fabrication facilities and comparable research and development areas classified as Group H-5 shall comply with this chapter and the *International Building Code*. The use, storage and handling of hazardous materials in Group H-5 shall comply with this chapter, other applicable provisions of this code and the *International Building Code*.

❖ Semiconductor facilities are unique facilities that, due to their size, complex layout and the logistics of their operations, have been provided with a unique package of requirements. In some cases, these unique requirements will allow the maximum allowable quantities (MAQs) established in Tables 5003.1.1(1) and 5003.1.1(2) to be exceeded. The hazardous material MAQs are essentially replaced by more specific allowances and restrictions in this chapter. In cases where a material hazard is not addressed in this chapter, the applicable requirements found in Chapter 50 and associated material-specific chapters of the code and the *International Building Code*® (IBC®) would still apply regardless of whether the MAQs have been exceeded. Semiconductor fabrication facilities are classified in Occupancy Group H-5 and are to comply with the applicable provisions of IBC Section 415.11. Commentary Figure 2701.1(1) shows a typical layout of such facilities. Commentary Figure 2701.1(2) shows typical hazardous production materials (HPM) found in semiconductor manufacturing.



Commentary Figure 2701.1(1)
TYPICAL COMPONENTS OF AN HPM FACILITY

MATERIAL	DESCRIPTION OR USE	NFPA 704 HAZARD CLASSIFICATION			
		Health	Flammability	Reactivity	Other
Acetic acid	Corrosive liquid used for wet etching (metal)	2	2	1	
Acetone	Flammable liquid used for wafer cleaning	1	3	0	
Ammonium fluoride	Corrosive for wet etching (oxide)	3	0	0	
Arsenic trichloride	Diffusion	3	0	1	W
Arsenic trioxide	Diffusion	4	0	0	
Arsine	Poison flammable gas used for epitaxial growth, diffusion and ion implanation	4	4	3	
Boron tribromide	Corrosive liquid used for diffusion	4	0	3	W
Boron trichloride	Nonflammable corrosive gas used for diffusion	4	0	1	W
Chlorine	Poison gas used for dry etching	3	0	0	OXY
Diborane	Highly reactive flammable gas used for diffusion	3	4	3	W
Dichlorosilane	Flammable liquefied gas used for epitaxial growth	4	4	4	
Gallium	Reactive metal used as a semiconductor crystal material	1	0	3	
Gallium arsenide	Reactive metal salt used as a semiconductor crystal material	3	0	0	

MATERIAL	DESCRIPTION OR USE	NFPA 704 HAZARD CLASSIFICATION			
		Health	Flammability	Reactivity	Other
Gallium arsenide phosphide	Reactive metal salt used as a semiconductor crystal material	3	0	0	
Germanium	Reactive metal used as a semiconductor crystal material	0	0	3	
Hydrofluoric acid	Highly corrosive liquid or gas used for wet etching (oxide)	4	0	0	
Hydrogen peroxide[a]	Organic peroxide used for wafer cleaning	2	0	1	OXY
Isopropanol	Flammable liquid used for wafer cleaning	1	3	0	
Methanol	Flammable liquid used for wafer cleaning	1	3	0	
Nitric acid	Corrosive liquid used for wet etching (metal)	3	0	0	OXY
Oxygen (liquid)	Oxidizing gas used for oxidation	3	0	0	OXY
Phosphine	Flammable liquefied poison gas used for diffusion and ion implantation	4	4	4	
Phosphoric acid	Corrosive liquid used for wet etching (metal)	2	0	0	
Phosphorus oxychloride	Corrosive liquid used for diffusion	4	0	3	W
Phosphorus pentoxide	Corrosive solid sublimed for use in diffusion	4	0	3	W
Phosphorus tribromide	Corrosive liquid used for diffusion	4	0	3	W
Silane	Pyrophoric gas used for oxidation	2	4	4	
Silicon	Flammable solid (metal) used as a semiconductor crystal material	2	4	2	W
1, 1, 1-Trichloroethane	Mildly flammable solvent (difficult to ignite) used or wafer cleaning	2	1	0	
Tetrachlorosilane	Flammable liquid used for epitaxial growth	3	4	2	W

a. NFPA 704 values for 35 to 52 percent by weight (the most concentration) are listed. The reactivity hazard increases to 3 at concentrations above 52 percent.

Commentary Figure 2701.1(2)
HAZARDOUS PRODUCTION MATERIALS (HPM) USED IN THE MANUFACTURE OF SEMICONDUCTORS

2701.2 Application.

The requirements set forth in this chapter are requirements specific only to Group H-5 and shall be applied as exceptions or additions to applicable requirements set forth elsewhere in this code.

❖ Chapter 27 requirements are specific only to Group H-5 occupancies, with the requirements applied as exceptions or additions to requirements addressed elsewhere in the code. Where Chapter 27 contains a specific requirement for a certain condition and a general requirement for the same condition exists elsewhere in the code, the specific Chapter 27 requirements are to be applied. For example, general requirements for spill control and containment for use conditions involving hazardous materials in amounts exceeding MAQs are found in Section 5004.2, with conditions specific to Group H-5 occupancies addressed in Section 2705.2.3.3. For Group H-5 occupancy conditions, the specificSection 2705.2.3.3 requirements take precedence over the general requirements addressed in Section 5004.2.

2701.3 Multiple hazards.

Where a material poses multiple hazards, all hazards shall be addressed in accordance withSection 5001.1.

❖ All hazard classifications of a material are to be considered. For example, glacial acetic acid is classified as both a Class II combustible liquid and a corrosive liquid. Thus, for glacial acetic acid, the requirements for both Class II combustible liquids and corrosive liquids must be met. This section restates the conditions found in Section 5001.1.

2701.4 Existing buildings and existing *fabrication areas*.

Existing buildings and existing *fabrication areas* shall comply with this chapter, except that transportation and handling of HPM in *corridors* and enclosures for *stairways* and *ramps* shall be allowed where in compliance withSection 2705.3.2 and the *International Building Code*.

❖ Although the adoption and enforcement of code requirements specifically addressing semiconductor manufacturing and similar research and development operations have been in place for over 20 years, there are still some facilities that predate the adoption of regulations specific to these operations. This section requires modifications to existing facilities to comply with certain provisions of IBC Section 415.11. Additionally, requirements found inSection 2705.3.2 of this code and Section 415.11.2 of the IBC must be met where existing conditions or modifications do not include service*corridors*

and existing exit access *corridors* that are used to transport HPM to *fabrication areas*.

2701.5 Permits.

Permits shall be required as set forth in Section 105.5.

❖ The process of issuing permits gives the *fire code official* an opportunity to carefully evaluate and regulate hazardous operations. Permit applicants should be required to demonstrate that their operations comply with the intent of the code before the permit is issued. The process also notifies the fire department of the need for prefire planning for the hazardous property. See the commentary to Section 105.5 for a general discussion of operations requiring an operational permit, notably Section 105.5.22 for a discussion of specific quantity-based hazardous materials operational permits and Section 105.5.23 for HPM operational permits.

H. EXHIBITS: COURT ORDERS & CONSENT AGREEMENTS

22. EXHIBIT: LSI LOGIC V MCA/SANTA CLARA

COPY

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NO CHANGE IN JUDGMENT

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

SIXTH APPELLATE DISTRICT

FILED

AUG 25 1995

Court of Appeal - Sixth App. Dist.

BY _____ DEPUTY

H012427

(Santa Clara County Super.Ct.No. 736936)

LSI LOGIC CORPORATION,

Plaintiff and Appellant,

vs.

CITY OF SANTA CLARA,

Defendant and Respondent;

MUSLIM COMMUNITY ASSOCIATION,

Real Party in Interest and Respondent.

_____/

ORDER MODIFYING OPINION

THE COURT:*

It is ordered that the opinion filed herein on August 21, 1995, be modified in the following particular:

1. The last sentence of the first paragraph on the first page is modified to read: We reverse.

There is no change in judgment.

DATED:

_____
Premo, Acting P.J.

_____
Elia, J.

* Cottle, P.J., did not participate.

NOT CERTIFIED FOR PUBLICATION

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

SIXTH APPELLATE DISTRICT

LSI LOGIC CORPORATION,

Plaintiff and Appellant,

vs.

CITY OF SANTA CLARA,

Defendant and Respondent;

MUSLIM COMMUNITY ASSOCIATION,

Real Party in Interest and Respondent.

_____/

H012427

(Santa Clara County Super.Ct.No. 736936)

LSI Logic Corporation (hereafter, LSI) appeals from a judgment denying its petition for a writ of mandate. We affirm.

PROCEDURAL AND FACTUAL BACKGROUND

Real party in interest Muslim Community Association (hereafter, MCA) applied to respondent City of Santa Clara (hereafter, City) for a use permit to use the existing building at 3003 Scott Boulevard as a church, elementary school, and day-care center. The building is located in a light industrial zone.

City's Project Clearance Committee (hereafter, Committee) preliminarily reviewed MCA's application. The Committee recommended approval of the use permit subject to the conditions.

The initial study was conducted by City's planning department which concluded that "although the proposed project COULD HAVE a significant effect on the environment, there will not be a significant effect in this case because the MITIGATION MEASURES required by the conditions of approval have been added to the project. A NEGATIVE DECLARATION will be prepared."

The negative declaration was subsequently prepared by the Committee, based on the initial study's findings that "no significant environmental impacts have been identified to remain with appropriate mitigations."

Following the adoption by the Committee of the negative declaration, MCA's completed application was set for public hearing by City's Planning Commission (hereafter, Commission). After the hearing, the Commission's staff recommended denial, without prejudice, of the request "for a use permit for a school, pre-school and day-care facility." At the same time, the Commission's staff recommended approval of the intended church use, subject to certain conditions.

The Commission denied, without prejudice, MCA's application "for a use permit for a church, school, pre-school and day-care facility."

MCA appealed the Commission's decision to the city council. On November 16, 1993, following a public hearing on MCA's appeal, the city council voted, 4 to 3, to overrule the Commission and approve MCA's application.

LSI, a semiconductor manufacturer operating at nearby Alfred Street, directly across from 3003 Scott Boulevard (a corner

property bounded by Scott Boulevard and Alfred Street), Sobrato Development Companies (hereafter, Sobrato), which owns the buildings leased to LSI, and Brambles California, Inc. (hereafter, Brambles), which handles and disposes of toxic and hazardous materials and which is located less than 2,000 feet from the proposed project, petitioned the superior court for a writ of mandate directing the city council to rescind and withdraw its approval of MCA's application for a conditional use permit. Brambles later filed a request for dismissal from the action, which the court granted with prejudice.

On February 17, 1994, the trial court orally delivered its statement of decision denying the writ petition. On March 18, 1994, the court filed its judgment.

LSI and Sobrato filed a notice of appeal. Sobrato subsequently requested this court to dismiss its appeal. We granted that request and dismissed Sobrato's appeal on August 17, 1994.

CONTENTION

LSI contends the trial court abused its discretion in denying its petition for a writ of mandate and discharging the alternative writ because the conditional use permit was issued by City in violation of California's Environmental Quality Act (hereafter, CEQA) and City's zoning ordinance.

STANDARD OF REVIEW

In CEQA cases where the issue is the necessity of an

environmental impact report (hereafter, EIR), the correct standard of review is as summarized by this court in Leonoff v. Monterey County Bd. of Supervisors (1990) 222 Cal.App.3d 1337, 1348-1349: "A public agency should not file a negative declaration for a project if it can be fairly argued that the project might have a significant environmental impact. [Citations.] Where the agency has filed a negative declaration while granting a use permit, the concern of judicial review, by both trial and appellate courts, is whether there is substantial evidence in the record supporting a fair argument of significant environmental impact. If such evidence is found, it cannot be overcome by substantial evidence to the contrary. [Citations.] [¶] [] However, it remains the appellant's burden to demonstrate by citation to the record the existence of substantial evidence supporting a fair argument of significant environmental impact. [Citation.]"

In Stanislaus Audobon Society, Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 151, the Fifth Appellate District applied the same standard of review, adding: "Application of this standard is a question of law and deference to the agency's determination is not appropriate. Rather, we independently 'review the record and determine whether there is substantial evidence in support of a fair argument [the proposed project] may have a significant environmental impact, while giving [the lead agency] the benefit of a doubt on any legitimate, disputed issues of credibility.' [Citations.] An agency's 'decision not to require an EIR can be upheld only when there is no credible

evidence to the contrary.' [Citation.] The appellate court conducts a de novo review of the record. '[T]he trial court's findings are not dispositive.' [Citation.]"

Most recently, in Gentry v. City of Murrieta (July 18, 1995) ___ Cal.App.4th ___ [95 CDOS 5612, 5621], the court, agreeing with our analysis in Leonoff, concluded that under the fair argument test "the agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a proposed project may have a significant effect on the environment. [Citations.] 'If such evidence is found, it cannot be overcome by substantial evidence to the contrary.' [Citations.]"

"Substantial evidence" is evidence that is of "'ponderable legal significance . . . reasonable in nature, credible, and of solid value.' [Citation.]" (Lucas Valley Homeowners Assn. v. County of Marin (1991) 233 Cal.App.3d 130, 142.) In the CEQA context, "substantial evidence" is "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made is to be determined by examining the entire record. Mere uncorroborated opinion or rumor does not constitute substantial evidence." (Cal. Code Regs., tit. 14, § 15384, subd. (a).)

A "[s]ignificant effect on the environment," on the other hand, "means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora,

fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." (Cal. Code Regs., tit. 14, § 15382; see also Oro Fino Gold Mining Corp. v. County of El Dorado (1990) 225 Cal.App.3d 872, 881.)

With the foregoing standard of review in mind, we now address the question whether in this case the record supports a fair argument of significant environmental impact.

DISCUSSION

The record discloses that on October 4, 1993, Dr. Dave Parker, hazardous materials administrator for the fire department, had written the planning department expressing environmental concerns over MCA's proposed project. Because of the critical importance Parker's letter bears on the issue of environmental impact, we quote that letter extensively: "The subject facility is in a developed industrial area where hazardous materials are stored, handled and used. The proximity of businesses using hazardous materials poses a potential health and safety threat to the sensitive populations of both school and assembly uses in this building. The potential for off-site consequences from chemical spills and toxic gas releases is high because there are more than a dozen facilities in the immediate area with a history of hazardous materials releases. In addition, the area contains vacant land and buildings suitable

for hazardous materials uses. [¶] In addition to the nearby facilities posing a health and safety threat to the school and day care, the school and day care would impose a financial burden on nearby hazardous materials facilities. Any existing or new business within 1,000 feet of the proposed school facility will be required to develop and implement a Risk Management and Prevention Plan if they are using hazardous production materials. . . . [¶] A Risk Management and Prevention Program or 'RMPP' includes all the administrative and operational programs of a business which are designed to prevent hazardous materials accident risks (for example, design safety of new and existing equipment, operational procedures, training, emergency response planning, and all other related procedures.) The RMPP process involves (1) conducting a risk assessment, (2) preparing a plan based on the risk assessment, and (3) implementing the plan. In preparing this plan to reduce the risk to the community, the law requires special consideration be given to the proximity of the facility to schools, residential area, hospitals, health care facilities and child day care facilities. [¶] Thus, a facility which has hazardous materials and is located near a sensitive population would have to build and operate to a higher level of safety than otherwise would be the case. The additional costs associated with locating a facility near a sensitive population would vary with the nature of the hazardous materials involved, the size of the facility, how the materials are used, etc. The estimated costs of preparing a RMPP are in the range of a few thousand to the tens of thousands of dollars. The business must

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update the RMPP every 3 to 5 years. The cost to implement the plan could be several times the cost of preparing the plan. In addition, there are additional on-going costs to maintain the safety conditions addressed in the plan, training employees, equipment maintenance, means of evacuation, etc. Moving a sensitive population into a hazardous materials zoned area increases the costs of doing business, decreases the desirability of locating there, and thus may result in de facto rezoning of the area. [¶] The Fire Department has responded to 36 hazardous materials incidents within a 1,000-foot radius of this site since 1984."

The same concerns had earlier been expressed by the fire department in a handwritten note to the Committee when that committee requested the fire department to comment on MCA's proposed project.

On October 13, 1993, the Planning Commission noted in its minutes that the concern over MCA's proposed project "related to the safety of children in an industrial zone where a variety of industrial processes occur with the presence, in many cases, or future likelihood of hazardous materials." The Commission pointed to "various businesses in the area with large storage facilities of hazardous/toxic materials and other flammables," and advised that "[u]nder State law, businesses which use hazardous materials and pose critical risks, can be required to prepare Risk Management and Prevention Programs." The Commission concluded that "[a]pproval of this school request could result in

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higher planning and implementation costs for some nearby businesses."

The Planning Commission's October 13, 1993, minutes also reflect that the Commission's staff, while recommending conditional approval of MCA's use permit application for a church, recommended unconditional denial, without prejudice, of MCA's use permit application for a school, pre-school, and day-care facility because "the proposed use will have an impact on surrounding properties and businesses as the consideration of industrial activities normally permitted in the area may be affected by the existence of a school and day-care facilities."

The same minutes likewise showed that Parker had told the commission that "if there were a hazardous materials incident, a dosage that an adult might be able to handle would affect a child differently, simply because children are smaller."

In light of the evidence of significant environmental impact that was before the Planning Commission, the Commission found, by a 4 to 1 vote, that MCA's proposed project would have an adverse environmental impact on the surrounding properties. The Commission therefore directed MCA to seek a more suitable location for its intended project.

MCA appealed the Commission's determination to the city council, which conducted a public hearing on November 16, 1993. One of the persons to speak at the public hearing was Fire Department Chief Gerald Simon. Simon advised the council that the site of the proposed project "is a particularly difficult location because of the amounts of hazardous materials that are

adjacent to that facility," and, additionally, the location is "a major transportation route for hazardous materials." Simon informed the council that "[w]e did have a major propane tank incident on Highway 101, which would have been directly adjacent to this particular site," and that "in the six, seven, and eight year timeframe, we've had three very, very major types of incidents that have occurred within 1,000 feet of this particular facility."

Simon continued: "The other part that's difficult from a hazard mitigation strategy is if we did have a significant release of hazardous material, particularly in this area, we would have to commit a second alarm response assignment directly to dealing with mitigation strategies. [¶] If we were to then have to address the concerns of the school site, the preschool, particularly with a non-mobile population, we would have to then devote a third alarm and possibly a fourth alarm assignment to just that particular locale. When we do that, we cut the resources in the City of Santa Clara down to three available units to respond to every other incident throughout the City. [¶] [] The other thing that we have a concern about is that the businesses in the area would then have to engage in a Risk Management Prevention Plan if we allowed a special Use in this particular area. They would then have to identify how they would begin to deal with the planning, implementation, and strategy for dealing with any kind of a release, which puts an additional burden on our business community and additional liability for them in terms of our planning."

Following the public hearing, the city council voted to overrule the planning commission by the narrowest of margins: 4 to 3.

On this record, we are persuaded there is substantial evidence to support a fair argument of significant environmental impact.

No Proper Mitigation of Significant Environmental Impact

MCA contends any significant environmental impact was properly alleviated through the mitigated negative declaration process followed by City. We disagree.

In 1993, Public Resources Code section 21080, subdivision (c),[1] provided: "If a lead agency determines that a proposed project, not otherwise exempt from this division, does not have a significant effect on the environment, the lead agency shall adopt a negative declaration to that effect. The negative declaration shall be prepared for the proposed project in either of the following circumstances: [¶] (1) There is no substantial evidence before the agency that the project may have a significant effect on the environment. [¶] (2) An initial study identifies potentially significant effects on the environment, but (i) revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects

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1 Further statutory references are to the Public Resources Code unless otherwise indicated.

or mitigate the effects to a point where clearly no significant effects on the environment would occur, and (ii) there is no substantial evidence before the agency that the project, as revised, may have a significant effect on the environment." (See Stats. 1985, ch. 392, § 2.)[2]

In this case, the minutes of the Committee reveal that at the time of the preparation of those minutes (Sept. 13, 1993), an initial study was being prepared and the Committee had expected a negative declaration to be filed.

At the conclusion of the initial study on September 17, 1993, senior planner Kevin L. Riley determined that "although the proposed project COULD HAVE a significant effect on the environment, there will not be a significant effect in this case because the MITIGATION MEASURES required by the conditions of approval have been added to the project. A negative declaration will be prepared."

Among the potential significant environmental impacts that the initial study identified were: (1) the proposed project would result in a substantial alteration of the present land use of the area because "school activity and the presence of children on a regular basis may limit the ability of surrounding industrial properties to exercise full rights as permitted by zoning regulations"; and (2) the proposed project would create health

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2 Section 21080 was amended by Statutes 1993, chapter 1130, effective January 1, 1994. The amendment does not apply here because all administrative proceedings in this case occurred in 1993.

hazards or expose people to potential health hazards because "[s]urrounding industrial activities may include processes as well as storage of hazardous materials which could present concerns of exposure of children in the facility." The initial report also noted that if the project is approved, "State law mandates that surrounding industrial facilities file certain reports and prepare emergency plans related to potential industrial disasters."

On January 11, 1994, the city council approved the agenda report of the director of planning and inspection which recommended adoption of the negative declaration and a finding that the issuance of the conditional use permit would have "no significant impact on the environment." The recommendation "to approve the use permit for church, school, and daycare use" was made "subject to the conditions of approval contained in the staff report for the Planning Commission meeting of October 13, 1993."

However, the October 13, 1993, staff report adverted to in the agenda report had specifically and unconditionally recommended denial of MCA's request to establish a school, pre-school, and day-care facility at the 3003 Scott Boulevard site. The only part of MCA's application that the staff report had recommended for approval was the request to establish a church, and then only when the conditions therein specified were met.

Therefore, the compliance by MCA of the conditions set forth in the October 13, 1993, staff report would only mitigate the impact on the environment that the establishment of a church

would create, but not the adverse impact on the environment that the establishment of a school, pre-school, and day-care facility would produce.

Granting arguendo that the mitigation conditions enumerated in the October 13, 1993, staff report were also intended to cover the establishment of the school and day-care facilities, a review of those conditions shows their inadequacy to mitigate the environmental concerns of the fire department. The conditions specified in the October 13, 1993, staff report related only to obtaining appropriate clearances and payment of fees; construction of driveways and sidewalks; restrictions on visual obstructions; requiring a private system of on-site water hydrants and water distribution facilities; installation of required landscaping, irrigation, and sewer facilities; compliance with standard requirements for the issuance of building permits; construction of fire apparatus access roads; installation of sprinkler and fire alarm systems; and compliance with other building code requirements.

Clearly, none of those conditions directly, specifically, and adequately addressed the serious environmental concerns of the fire department, such as the exposure of the building occupants to hazardous materials, the impairment of City's ability to deliver emergency services, or the significant additional burdens that would be imposed on neighboring industrial facilities.

We conclude that despite the mitigation conditions prescribed in the October 13, 1993, staff report, there remains

in the record substantial evidence supporting a fair argument of significant environmental impact.

Violation of Zoning Ordinance

Our finding of substantial evidence supporting a fair argument of significant environmental impact disposes of this appeal. Consequently, we need not reach the issue of whether City also violated its zoning ordinance.

DISPOSITION

The judgment denying LSI's petition for a peremptory writ of mandate is reversed. The cause is remanded to the superior court with direction to issue a writ of mandate directing City to vacate its approval of the challenged conditional use permit pending certification of a legally sufficient EIR. LSI is awarded costs on appeal as the prevailing party herein, such costs to be apportioned equally between City and MCA.

JOHN W. ELLIOTT, ESQ. State Bar #61042
JEFFREY S. LAWSON, ESQ. State Bar #99855
REED, ELLIOTT, CREECH & ROTH
99 Almaden Boulevard, Eighth Floor
San Jose, California 95113
Telephone: (408) 993-9911

Attorneys for Petitioner
LSI LOGIC CORPORATION

FILED CMS

JUL 30 9 26 AM '96

STEPHEN V. LOVE
COUNTY CLERK
SANTA CLARA COUNTY
BY _____ DEPUTY

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF SANTA CLARA

LSI LOGIC CORPORATION, Petitioner, v. THE CITY OF SANTA CLARA, Respondent. MUSLIM COMMUNITY ASSOCIATION, Real Party in Interest.	Case No.: CV736936 **ORDER TO SHOW CAUSE RE FAILURE TO OBEY PREEMPTORY WRIT OF MANDATE (C.C.P. § 1097)**

TO THE CITY OF SANTA CLARA, RESPONDENT, AND THE MUSLIM COMMUNITY ASSOCIATION, REAL PARTY IN INTEREST:

YOU ARE HEREBY ORDERED to appear before this court in Department 13 on August 16, 1996, at 9:00 a.m., then and there to show cause, if any you have, why you should not be sanctioned for wilfully disobeying the preemptory writ of mandate on file in this proceeding that issued from this court on January 12, 1996, which writ and your disobedience thereof are more fully described in the Application for Ex Parte Order to Show Cause.

This Order shall be served on you by delivering a copy thereof attached to a copy of the Application for Ex Parte Order to Show Cause, at least 5 days prior to the date of the hearing.

Dated: 7/30/96

Honorable READ AMBLER
Judge of the Superior Court

JOHN W. ELLIOTT, ESQ. State Bar #61042
JEFFREY S. LAWSON, ESQ. State Bar #99855
REED, ELLIOTT, CREECH & ROTH
99 Almaden Boulevard, Eighth Floor
San Jose, California 95113
Telephone: (408) 993-9911

Attorneys for Petitioner
LSI LOGIC CORPORATION

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF SANTA CLARA

LSI LOGIC CORPORATION, Petitioner, v. THE CITY OF SANTA CLARA, Respondent. MUSLIM COMMUNITY ASSOCIATION, Real Party in Interest.	Case No.: CV736936 **APPLICATION FOR EX PARTE ORDER TO SHOW CAUSE AND DECLARATION OF JEFFREY S. LAWSON (C.C.P. § 1097)** **DATE: July 30, 1996** **TIME: 8:30 a.m.** **DEPT: 13** **Hon. Read Ambler**

In support of Petitioner LSI Logic Corporation's ("LSI Logic") application under C.C.P. § 1097 for an order to show cause why the court should not impose penalties for refusal to obey a preemptory mandate, the undersigned Jeffrey S. Lawson, attorney for LSI Logic, declares:

1. I am an attorney for Petitioner LSI Logic.

2. On January 12, 1996, an Amended Preemptory Writ of Mandate was issued to the City of Santa Clara ("Council") and the Muslim Community Association ("MCA"), Real Party in

Interest, commanding the Council to vacate its approval of the challenged conditional use permit pending certification of a legally sufficient Environmental Impact Report.

3. The writ was issued because the Council had improperly, and over the objection of the Santa Clara Fire Department and a denial by the City's Planning staff, granted a school, preschool, daycare center and church a conditional use permit in an industrial zone. This placed the children using this facility in the immediate vicinity of a LSI Logic manufacturing facility which uses toxic gases, and ships and receives hazardous materials.

4. Despite the clarity of the court's order, the Council failed to comply with the court order and, instead, in its Return to Preemptory Writ of Mandate, submitted "findings" attempting to justify a six-month delay in compliance.

> A. This enforcement period is consistent with the normal enforcement process used by the City in similar matters involving unpermitted uses;
>
> B. It will allow the children to complete their school year and will avoid undue hardship on them;
>
> C. The six (6) month period will allow the completion of the environmental impact report (EIR), the period for public comment and for public hearing; and,
>
> D. The six (6) month period will allow the Muslim Community Association to observe the holy month of Ramadan. (Respondent's Return of Preemptory Writ of Mandate, 2:14-25.)

4. On January 25, 1996, LSI Logic objected to the City of Santa Clara's failure to vacate the conditional use permit, by pointing out that the Council's action defied the court's order by granting the MCA a six-month extension on their conditional use permit. Nevertheless, in the interest of not causing an

undue burden to the MCA, LSI Logic did not request a C.C.P. § 1097 order for enforcement by the court at that time.

5. In regard to the Council's Findings B and D, the six-month extension expired on January 24, 1996. The holy month of Ramadan has passed, it is summer and the children are out of school, and now is the least burdensome time for the MCA to move.

6. The Santa Clara County Superior Court's order and the District Court of Appeals' direction required vacation of the conditional use permit during the pendency of the EIR process--not a continuation of MCA's occupancy during the EIR process. The Council's Finding C turns the writ on its head and takes exactly the opposite course than the court ordered.

7. The Council's Finding A is simply a "make-weight" argument attempting to justify noncompliance with the court's order. Even assuming arguendo that the Council normally waits six months before enforcing against unpermitted uses, this is not a "normal" case. This is a case where the Council is under an unambiguous court order to vacate the conditional use permit.

8. LSI Logic's goal throughout this proceeding has been to enforce the zoning standards to avoid being forced into a situation where its legal operations in an industrial area are made more expensive by the proximity of a school, preschool, and daycare center and to avoid putting the MCA's children at risk. It was to avoid any undue burden on the MCA that LSI Logic simply filed its objection to the original Return to Preemptory Writ of Mandate but did not force the issue.

9. Now, however, the Council has filed an Amended Return

to Preemptory Writ of Mandate which indefinitely extends to the MCA permission to remain on the site and will allow the children to return to the school.

10. The EIR, which is controlled by the City, has already been substantially delayed. It was expected to be in the public review process by now, but instead, probably will not be completed until late fall.

11. The Council's action again places the children at risk of personal injury, and places additional costs upon LSI Logic in its manufacturing operations.

12. The Council has attempted to justify its continuing defiance of the court's order with four new findings:

> A. This additional enforcement period is consistent with the normal enforcement process used by the City in similar matters involving unpermitted uses;
>
> B. This additional period will allow completion of the environmental impact report (EIR), the period for public comment and for public hearing;
>
> C. The extended enforcement period will allow MCA to prepare a contingency plan for moving the school, mosque and daycare facility in the event the use permit is not granted after completion of the EIR; and,
>
> D. Not extending this enforcement period will cause a significant impact to MCA. (Respondent's Amended Return to Preemptory Writ of Mandate 3:26-4:10.)

13. Findings A and B are the same as before and carry even less credibility now. Finding C is an admission on the part of the MCA that they did not agree in good faith to the initial extension. If they had, they should be ready to move now. Finding D does not say anything other than they do not find the court order convenient.

14. The MCA asked for an additional six months at the time

of the court's writ in January 1996 in order to finish the school year. Now that summer is here and the time to move is upon the MCA, the Council is allowing the MCA to breach that understanding and is allowing them to stay in place and start another school year.

15. Once the school year starts, we will hear again that the MCA cannot move because it would disrupt the children's education. This cannot be allowed to go on endlessly. Now is the time for the MCA to move. That was the original understanding and LSI Logic has been more than patient.

16. There is no reasonable expectation that without further action of this court the Council will ever comply with the court's existing order. This matter needs to be resolved now, during the summer months while the children are out of school.

17. California Code of Civil Procedure § 1097 provides:

> When a preemptory mandate has been issued and directed to any inferior tribunal, corporation, board, or person, if it appears to the court that any member of such tribunal, corporation, or board, or such other person upon whom the writ has been personally served has without just excuse, refused or neglected to obey the same, the court may, upon motion, impose a fine not exceeding $1,000. In case of persistence in a refusal of obedience, the court may order the party to be imprisoned until the writ is obeyed, and may make any orders necessary and proper for the complete enforcement of the writ. (Emphasis added.)

18. An order to show cause is the appropriate method of seeking enforcement pursuant to section 1097. Carroll v. Civil Service Commission (1970) 11 Cal.App.3d 727, 730-731; 90 Cal.Rptr. 128. The extengency of resolving this matter quickly so that the MCA can find alternative facilities to conduct its

school and daycare activities outside the industrial zone before school starts require prompt action.

19. I have notified Julia Mandeville, attorney for The City of Santa Clara, and Stephen Gerrish, attorney for the Muslim Community Association, that this application would be made to this court at this time.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated: July 29, 1996

REED, ELLIOTT, CREECH & ROTH

JEFFREY S. LAWSON, Esq.
Attorneys for Petitioner
LSI LOGIC CORPORATION

23. EXHIBIT: DTSC CONSENT AGREEMENT WITH APPLE INC

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Department of Toxic Substances Control

News Release

T – 19 – 16
Barbara A. Lee, Director

FOR IMMEDIATE RELEASE
December 6, 2016

Contact: Sanford (Sandy) Nax
(916) 327-6114

Apple Agrees to Pay $450,000 to Settle Hazardous Waste Violations

SACRAMENTO – A settlement agreement between the California Department of Toxic Substances Control (DTSC) and Apple Inc. was filed in Santa Clara County Superior Court by the California Attorney General's Office on behalf of DTSC.

Apple has agreed to pay $450,000 to DTSC and to increase facility inspections to settle allegations of hazardous waste violations at facilities in Silicon Valley. The settlement stems from violations that DTSC found during a June 13, 2013 inspection of an Apple electronic waste shredding facility in Sunnyvale and a subsequent review of records. DTSC discovered that Apple had opened, operated and then closed an electronic waste shredding facility from 2011 to 2012 in Cupertino without DTSC's knowledge and without complying with universal waste regulations, including the mismanagement of metal dust from shredder operations.

Apple processed about 1.1 million pounds of electronic waste at the Cupertino facility before closing it in January 2013, and shifting operations to a facility in Sunnyvale. In Sunnyvale, Apple dismantled, shredded and disposed of more than 800,000 pounds of electronic waste before notifying DTSC of the plant's existence and complying with all universal waste regulations.

Universal waste, such as electronic devices, batteries and other discarded consumer products containing hazardous substances, are subject to California universal waste regulations. Since they are considered a type of hazardous waste, universal waste handlers who accept universal waste must notify DTSC and handle the waste according to management standards required by law.

The shredding process produces a fine dust that is collected by a baghouse and filter system. The dust is classified as a hazardous waste due to the concentration of metals. The shredded devices are shipped offsite for recycling and sold as scrap metal. Apple, however, shipped hazardous dust and floor sweep from Sunnyvale to a recycling facility in Roseville that was not authorized to handle Apple's hazardous waste.

After the inspection, records review and dust sampling, DTSC alleged the following violations:

- Transportation of hazardous waste without a proper manifest
- Failing to report and track exports of hazardous waste
- Failing to label or otherwise mark used oil containers as "hazardous waste"
- Failing to provide notice of closure for the facility in Cupertino

- Failing to submit a written closure plan and cost estimate for closing the facility in Cupertino and for eventual closure of the one in Sunnyvale
- Failing to demonstrate financial assurance to fund the eventual closure of the two facilities

"Compliance with the hazardous waste law is fundamental in protecting the health of workers and communities as well as the environment," said Keith Kihara, Chief of DTSC's enforcement division. "We are encouraged by the settlement and that Apple is working with us to take the necessary steps to comply with California's hazardous waste law."

As part of the settlement, Apple has agreed to maintain a closure plan and financial insurance for the facility, conduct weekly inspections of areas where hazardous waste is generated and stored, and will ensure that electronic waste, including shredded electronic waste, is properly labeled and not put into containers with dust derived from its shredding operations.

Here is a link to the Complaint for Civil Penalties:
http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple_Complaint.pdf

Here is a link to the Final Judgment Pursuant to Stipulation:
http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple_Final-Judgment.pdf

###

FOR GENERAL INQUIRIES: Contact the Department of Toxic Substances Control by phone at (800) 728-6942 or visit www.dtsc.ca.gov. To report illegal handling, discharge, or disposal of hazardous waste, call the Waste Alert Hotline at (800) 698-6942.

The mission of DTSC is to protect California's people and environment from harmful effects of toxic substances by restoring contaminated resources, enforcing hazardous waste laws, reducing hazardous waste generation, and encouraging the manufacture of chemically safer products.

KAMALA D. HARRIS
Attorney General of California
MARGARITA PADILLA
Supervising Deputy Attorney General
REED SATO
Deputy Attorney General
State Bar No. 87635
1300 I Street, Suite 125
P.O. Box 944255
Sacramento, CA 94244-2550
Telephone: (916) 445-5442
Fax: (916) 322-5609
E-mail: Reed.Sato@doj.ca.gov

Attorneys for People of the State of California, ex rel. Barbara A. Lee, Director of the Department of Toxic Substances Control

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SANTA CLARA

PEOPLE OF THE STATE OF CALIFORNIA, *ex rel.* BARBARA A. LEE, DIRECTOR OF THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL, Plaintiff, **v.** **APPLE INC., a California corporation,** Defendant.	Case No. **STIPULATION FOR SETTLEMENT AND ENTRY OF JUDGMENT AND PERMANENT INJUNCTION**

Plaintiff, the People of the State of California, *ex rel.* Barbara A. Lee, Director of the Department of Toxic Substances Control, ("Department") and Defendant Apple Inc. ("Apple") enter into this Stipulation for Settlement and Entry of Judgment ("Stipulation"), and agree as follows:

1. COMPLAINT

Concurrently with this Stipulation, the Department filed a Complaint for Civil Penalties and Injunctive Relief ("Complaint") against Apple for violations of the California Hazardous Waste Control Law, Health and Safety Code sections 25100 *et seq.* ("HWCL"), and implementing regulations, Cal. Code Regs, tit. 22, Division 4.5, sections 66000 et seq. ("Title 22"), in connection with processing electronic waste for disposal and recycling at facilities owned and operated by Apple in Santa Clara County.

2. JURISDICTION AND VENUE

The Department and Apple (together, the "Parties" and individually, "Party") agree that for purposes of this Stipulation, the Court has both subject matter over the allegations in the Complaint and personal jurisdiction over the parties to the Complaint. The Parties also agree that venue is proper in this Court under Health and Safety Code section 25183.

3. STIPULATION AND SETTLEMENT FOR ENTRY OF FINAL JUDGMENT

The Department and Apple enter into the Stipulation pursuant to a compromise and settlement of disputed claims. Each of the Parties consents to the entry by the Superior Court of Santa Clara County (the "Court") of a Final Judgment Pursuant to Stipulation which incorporates the terms of the Stipulation by reference. The Stipulation was negotiated and executed in good faith and at arms' length by each of the Parties, with their respective counsel, to avoid expensive and protracted litigation regarding violations of the HWCL and Title 22 alleged by the Department in the Complaint. The Department enters into this Stipulation to further the public interest. Nothing herein shall inure to the benefit of any persons not Parties to this Stipulation.

4. WAIVER OF HEARING AND TRIAL

By signing and entering into this Stipulation, Apple waives its right to a hearing and trial on matters alleged in the Complaint and to appeal. Further, the Parties each request entry of the Final Judgment on the terms set forth in this Stipulation.

5. APPLICABILITY

Unless otherwise expressly provided herein, the terms of this Stipulation and the Final Judgment shall apply to and be binding on (a) Apple its successors, and its officers, directors, and employees, and all persons acting within the control of Apple including, but not limited to Sims Recycling Solutions, Inc., at any facility in California owned or operated by Apple at which electronic waste or any other hazardous waste is treated, or recycled ("Apple Facility") and (b) the Department and any successor agency of the Department that may have responsibility for, and jurisdiction over, the subject matter of the Complaint and Final Judgment.

6. MATTERS COVERED

This Stipulation is a final and binding resolution and settlement of all violations that the Department alleged in its inspection reports stemming from the inspections of Apple Facilities conducted on June 13, 2013 and subsequent information requests, and the violations and causes of action that were specifically alleged in the Complaint against Apple. ("Matters Covered").

7. INJUNCTION

Apple shall be enjoined and ordered as follows:

a. Apple shall ensure that its officers, directors, and employees, representatives, and all persons acting within the control of Apple at any Apple Facility comply with all of the laws and regulations specifically identified in the violations alleged in Paragraph 31 of the Complaint.

b. Any officer or employee of Apple assuming responsibility for, or oversight of, hazardous waste management at Apple, including Apple's Facility manager, primary and secondary emergency coordinators, and the technicians responsible for baghouse maintenance and operations, must attend and successfully complete Modules I-V relating to hazardous waste at California Compliance School within six months of their hire, promotion, or assumption of responsibility unless they have attended the California Compliance School and passed the relevant modules within the last five years before the date of their hiring, promotion, or assumption of responsibility.

c. Apple shall ensure that e-waste labeled as Universal Waste, including shredded e-waste, is not mixed or otherwise placed in containers with dust derived from its shredding operations.

d. Apple shall conduct weekly inspections of all areas of its facilities where hazardous waste is generated or accumulated, including an inspection of all municipal waste containers and e-waste containers to inspect for improper management of hazardous waste. Apple shall maintain a written log on-site of the inspections required by Cal. Code of Regs, tit. 22, section 66265.15. The log shall be furnished upon request, and shall be made available at all reasonable times for inspection, to any officer, employee or representative of DTSC or the local Certified Unified Program Agency ("CUPA").

e. Apple must submit to the Department documentation demonstrating financial assurance for the Closure/Post Closure Plan in accordance with title 22, section 66265.143. The document submittals shall be submitted annually to DTSC by no later March 16 of each year.

f. Within 30 days of the Effective Date of the Judgment, the Senior Director of Real Estate and Development shall be responsible for ensuring that all required financial assurance documentation is submitted to the Department.

8. PENALTY

Apple shall pay the Department a civil penalty of $450,000 (four hundred-fifty thousand dollars) on or before fifteen days after the Effective Date (as defined in Paragraph 21, below) of the Judgment.

Apple shall pay the penalty by cashier's check made payable to "California Department of Toxic Substances Control" and bearing the notation "Apple Inc.," and shall send it to:

Cashier
Accounting Office, MS-21 A
Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812-0806

An electronic copy or paper photocopy of the cashier's check for payment of the penalty shall be sent, at the same time, to Department and Office of Attorney General personnel specified in Section 10 ("Notices"), below.

9. ENFORCEMENT

If the Department determines that Apple has violated the terms of this Stipulation or the Final Judgment, the Department will provide Apple with written notice of the default to its representatives identified in Section 11 ("Notices") below. If Apple fails to come into compliance within 30 calendar days of receiving the Department's notice, or another time frame specified by the Department (whichever is later), the Department may pursue all its rights and remedies to enforce the Final Judgment. Nothing in this section shall limit the Department's right to enforce the HWCL or Title 22 concerning violations not alleged in Paragraph 31 of the Complaint. The Department reserves its right to assert a claim, separate and independent of, and in addition to, any claim made to enforce this Final Judgment, for violations of the underlying statutory or regulatory requirements. In the event that the Department files any motion pursuant to this paragraph or brings an independent enforcement action, Defendants reserve and retain all rights and defenses to oppose the Department's motion or independent enforcement action.

At any time after the Final Judgment has been in effect for four (4) years, and Apple has paid all amounts due hereunder, Apple may, with notice to the Department, file a motion requesting that the Court order that the Permanent Injunction provisions of Paragraph 7 shall have no prospective force or effect based on Apple's demonstrated history of compliance with the Final Judgment. Within thirty (30) days of the filing of Apple's motion, the Department may file a response in opposition. If the Department agrees that Apple has complied with the obligations set forth in the Final Judgment, the Department may file a statement of non-opposition to Apple's motion or file no response. Within fifteen (15) days of any filing by the Department, Apple may file a response to the opposition, and the matter shall be set for hearing as soon as reasonably possible thereafter. The Parties agree that the Court may grant Apple's request upon determining that Apple has complied with the obligations set forth herein.

10. NOTICES

All notices under this Stipulation and the Judgment shall be in writing and shall be sent to:

For the Attorney General:

Reed Sato
Deputy Attorney General
1300 I Street, Suite 125
P.O. Box 944255
Sacramento, CA 94244-2550
Reed.sato@doj.ca.gov

For the Department:

Alex Baillie
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826
Alex.Baillie@dtsc.ca.gov

Christopher Cho
Office of Legal Counsel, MS-23A
Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812-0806
Christopher.Cho@dtsc.ca.gov

For Apple:

James C. Fowler
Associate General Counsel, Real Estate
Apple Inc.
1 Infinite Loop, M/S 4-DLAW
Cupertino, California 95014
jfowler@apple.com

Kristina E. Raspe
Senior Director, Real Estate
Apple Inc.
1 Infinite Loop, M/S 119-REF
Cupertino, California 95014
kraspe@apple.com

With a copy to:

William F. Tarantino
Morrison & Foerster LLP
425 Market Street, Suite 3300
San Francisco, California 94105
WTarantino@mofo.com

Each Party may change its respective representative(s) for purposes of notice by providing the name and address of the new representative, in writing, to both Parties. Any such change will take effect within seven calendar days of the date of the written notice.

11. AUTHORITY TO ENTER STIPULATION

Each signatory to this Stipulation certifies that he or she is fully authorized by the Party he or she represents to enter into this Stipulation, to execute it on behalf of the Party represented, and to legally bind that Party.

12. EFFECT OF STIPULATION AND JUDGMENT

Except as expressly provided in this Stipulation, nothing in this Stipulation or the Judgment is intended nor shall it be construed to preclude the Department, or any state, county, or local agency, department, board or entity from exercising its authority under any law, statute, or regulation.

13. NO WAIVER OF RIGHT TO ENFORCE

Should the Department decline to enforce any provision of the Stipulation or the Judgment, that shall neither be deemed a waiver of such provision, nor in any way affect the validity of the Stipulation or Judgment or the Department's enforcement authority, nor shall it preclude the Department from later enforcing the same or other provisions. No oral advice, guidance, suggestions, or comments by employees or officials of the Department, or conversations between employees or officials of the Department and employees or representatives of Apple, or people or entities acting on behalf of Apple, shall be construed to relieve Apple of its obligations under this Stipulation or the Judgment.

14. NO LIABILITY OF THE DEPARTMENT

The Department shall not be liable for any injury or damage to persons or property resulting from acts or omissions by Apple or its agents, servants, employees, representatives, or other persons acting in concert or participating with Apple, in carrying out Apple's obligations pursuant to this Stipulation or the Judgment.

15. FUTURE REGULATORY CHANGES

Nothing in this Stipulation or the Judgment shall excuse Apple from meeting more stringent requirements that may be imposed by changes in the applicable law. It is the responsibility of Apple to remain informed as to any and all applicable statutory and/or regulatory changes, and to remain in compliance with all applicable statutory and regulatory provisions.

16. INTEGRATION

This Stipulation and the Judgment constitute the entire agreement between the Parties, and may not be amended or supplemented except as provided for in this Stipulation or in the Judgment. No oral representations have been made or relied on other than as expressly set forth herein.

17. RETENTION OF JURISDICTION

The Parties agree that the Court has continuing jurisdiction to interpret and enforce the provisions of this Stipulation and the Judgment.

18. EQUAL AUTHORSHIP

This Stipulation shall be deemed to have been drafted equally by the Parties hereto. The Parties agree that the rule of construction holding that ambiguity is construed against the drafting party shall not apply to the interpretation of this Stipulation.

19. AMENDMENTS TO THIS STIPULATION AND THE JUDGMENT

This Stipulation and the Judgment may be amended only pursuant to a written agreement signed by all the Parties, followed by written approval by the Court, or by order of the Court following the filing of a duly noticed motion.

20. COUNTERPARTS

This Stipulation may be executed in several counterpart originals, all of which taken together shall constitute an integrated original document.

21. ENTRY OF JUDGMENT AND EFFECTIVE DATE OF JUDGMENT

The Parties further stipulate that upon approval of this Stipulation by the Court, the Court may enter the Final Judgment in this matter. The "Effective Date" of the Judgment is the date the Judgment is entered by the Court. If the Court does not approve this Stipulation and the Final Judgment in the form and substance proposed in Exhibit A hereto, each Party reserves the right to withdraw both the Stipulation and the Judgment upon written notice to all Parties and the Court.

IT IS SO STIPULATED.

Dated: 11/29, 2016

FOR THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Original signed by Keith Kihara

KEITH KIHARA
Division Chief
Enforcement and Emergency Response Division
Department of Toxic Substances Control

Dated: _____, 2016

FOR APPLE, INC.

_____
JAMES C. FOWLER
Associate General Counsel
Apple Inc.

21. ENTRY OF JUDGMENT AND EFFECTIVE DATE OF JUDGMENT

The Parties further stipulate that upon approval of this Stipulation by the Court, the Court may enter the Final Judgment in this matter. The "'Effective Date" of the Judgment is the date the Judgment is entered by the Court. If the Court does not approve this Stipulation and the Final Judgment in the form and substance proposed in Exhibit A hereto, each Party reserves the right to withdraw both the Stipulation and the Judgment upon written notice to all Parties and the Court.

IT IS SO STIPULATED.

Dated: _____, 2016

FOR THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL

_____

KEITH KIHARA
Division Chief
Enforcement and Emergency Response Division
Department of Toxic Substances Control

Dated: 11/17, 2016

FOR APPLE INC.

Original signed by James C. Fowler

JAMES C. FOWLER
Associate General Counsel
Apple Inc.

APPROVED AS TO FORM:

Dated: December 1, 2016

KAMALA D. HARRIS
Attorney General of California
SALLY MAGNANI
Senior Assistant Attorney General

Original signed by Reed Sato

REED SATO
Deputy Attorney General
Attorneys for Plaintiff People of the State of California, ex rel. Department of Toxic Substances Control

Dated: NOVEMBER 17, 2016

Original signed by Scott B. Murray

SCOTT B. MURRAY
Senior Litigation Counsel
APPLE INC.
For Defendant Apple Inc.