

## **Department of Energy**

**National Nuclear Security Administration** 

Washington, DC 20585

April 4, 2003

MEMORANDUM FOR

MANAGER, LIVERMORE SITE OFFICE MANAGER, LOS ALAMOS SITE OFFICE MANAGER, NEVADA SITE OFFICE MANAGER, SANDIA SITE OFFICE

MANAGER, KANSAS CITY SITE OFFICE

MANAGER, PANTEX SITE OFFICE

MANAGER, SAVANNAH RIVER SITE OFFICE

MANAGER, Y-12 SITE OFFICE

FROM:

Everet H. Beckner

C. S. Przybylek

Deputy Administrator

**Chief Operating Officer** 

for Defense Programs

SUBJECT:

Investigation of the Use of Improperly Heat-Treated Aluminum

Parts Supplied by Temperform USA

The purpose of this memorandum is to request that you investigate whether aluminum parts supplied by Temperform USA are in use in safety-related or mission-sensitive applications at your site. Improper heat-treating of aluminum parts by Temperform USA has resulted in decreased strength, reduced corrosion resistance, increased susceptibility to cracking, and reduced fatigue life of affected parts.

We are aware that considerable progress has already been made in resolving this issue through the efforts of your Quality Assurance Working Group member. However, it is not clear that the prior investigations were complete due to insufficient information available at the time. As such, you are requested to complete or verify that your investigation has been completed based on the lines of inquiry of Attachment 1.

Please provide a report documenting your investigation within 30 days of this memorandum. This will allow us to respond to the Defense Nuclear Facilities Safety Board's letter of February 14, 2003, on this issue in a timely manner.

Mr. Rabi Singh, Office of Operations and Construction Management (NA-124), will coordinate this effort for Defense Programs (NA-10). He may seek assistance from the National Nuclear Security Administration Service Center. Please assign a point of contact from your office to work with Mr. Singh in resolving this issue in a timely and efficient manner. Mr. Singh can be reached at (301) 903-5864.

## 2 Attachments

- cc w/attachments:
- D. Crandall, NA-11
- D. Miotla, NA-117
- M. Thompson, NA-117
- D. Beck, NA-12
- Col E. Schmidt, NA-121
- M. Schoenbauer, NA-122
- X. Ascanio, NA-124
- M. Clausen, NA-125
- T. D'Agostino, NA-13
- K. Baker, NA-20
- G. Rudy, NA-50
- J. Mangeno, NA-3.6
- R. Crowe, NA-3.6
- T. Rotella, NA-53
- A. Lane, NA-60
- R. Hardwick, EH-2
- M. Whitaker, S-3.1

## Temperform USA Lines of Inquiry

The investigation should address the following lines of inquiry to determine if your site has procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors.

- 1) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?
- Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 after May 1998?
- If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?
- 4) If you discover that site contractor(s) (or subcontractors) have or use material/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:
  - a) Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system), or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform an engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
  - b) Collect and track information on procurement and use of Temperform USA materials/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety and other applications.
- Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.
- 6) Determine the cost associated with this investigation. The Office of the Inspector

General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man hours, total cost for disposition of material (i.e., replacement cost, scrap cost, etc.), total cost for travel (if any), and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are changed later.

7) Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

## Attachment 2

<u> </u>	4man	2					
A & A Mechine & Development Co. Inc.	A STATE OF THE STA					A Property	70
	16626 Gramercy Place	Gardena	N 14-14	A 90247	1 September 1	USA	
A & R Products	4040 Del Ray Ave., # 68	Marine Del Rey		A 90292	<del> </del> -	USA	(310) 532-7
ABN Industrial Company	6940 Dale Street	Buena Park		A 90621		USA	(714) 521-8
ACD Inc Ace Clearwater Enterprise	2321 5 Pullman St	Santa Ana		A 92706	<del> </del>	USA	(714) 261-7
Age Air Mfg., Inc.	19815 Magellan Or	Torrance		A 90502		USA	(310) 538-2
	1430 Weet 135" Street	Gardena		A 90249		USA	(310) 323-7
Ace Soft Tooling, Inc.	315 East 157" Street	Gardene	(	A 90248		USA	(310) 324-3
Ace Tube Bending	14 Journey	Alisa Vieja		A 92656	<del> </del> -	USA	(5.0) 02+0
Accurate Machining Co.	568-6 Birch Street	Lake Elsinore		A 92530		USA	(909) 471-
ACM (All Components Manufacturing) Co.	4620 N. Ronald Street	Hardwood Height				USA	(708) 867-4
Acra Enterprises, Inc.	7607 Industry Ave. 5740 Thornwood Or,	Pico Rivera		A 90680		USA	(562) 948-3
Acro-Trace Corporation	5920 Dale Street	Goleta		A 93117		USA	(805) 964-4
Advanced Aerodynamics & Structures	3205 Lakewood Blvd	Buena Park		A 90621		USA	(714) 522-8
Advanced Metal Fab	3020 Las Hermanas Crive	Rancho Domingui		A 90808		ABU	(662) 938-8
Advanced Metaitorming Technologies	5215 S. Boyle Ave.	Los Angeles		A 90058	<del> </del>	USA	(310) 638-2
Advanced Ground System Engineering Corporation	1265 N. Kraemer Blvd.	Anahalm		A 92806	ļ	ARU	(323) 277-1
Advanced Precision Sheemetal, Inc.	140 East 182* Street	Gardena		A 90248	ļ	USA	(714) 632-9
Advanced Tube Engineering, Inc.	18211 Enterprise Lane, Unit C	Huntington Beach		A 92648		USA	(310) 324-4
Aero Arc	2555 W. 237th St	Тоггелсе	<del>'  </del>			ARU	(714) 847-7
Aero Bending Co.	43328 N. Division Street	Lancaster		A 93535-4644	<del> </del> -	USA	(310) 534-8
Aero Metal	2150 N. Lark Drive	Fertion	- IM			USA	(661) 948-2
Aera Metale Division of AISC, Inc. (Kennedy Space Center)	PO Box 5069, 7005 Challenger Ave.	Titueville	F		<b></b>	USA	<del></del>
Arc Sheet Metal	43328 N. Division Street	Lancaster	c		ļ <del></del> -	USA	(407) 289-11
Aero Sheet Metal	11602 Dehougne St	North Hollywood	- 6			USA	(881) 948-80
veto Wheel and Brake Service Corp.	6900 Acco Street	Montebello	c		<del></del>	USA	1/24 51 727
wrochers inc.		1	<del>-   -</del>		·	USA	(213) 727-8
dvence Pipe	2020 E. Sizuson Ave.	Huntington Park	-tc	A 90265	<del></del>	115.4	+
agressive Engineering Corp.	1235 N. Knotwood Circle	Ansheim	- C		<del></del>	USA	(714) 998-83
Aguire Machine IHF DUCOmmon	1879 West Commonwealth	Fyllerion	C.			USA	(714) 441-14
Urbus	PO 80x 2310	Gardene	C/			USA	(310) 380-53
		Parle				France	(210) 300-00
Import Forming (eks: Ron's Metal Spinning)	17293 Derwin Ave, #12	Hesperia	C.	92345		USA	(760) 966-10
	1641 East Gertrude Street	Santa Ana	C/	92705		UBA	(714) 850-81
Il-New Stamping Co. (aka: Quality Metal Stamping & Fabricating)  Il Power Manufacturing C.	10801 Lower Azusa Road	El Monte	C./	91731		USA	(800) 877-77
II-Pro Precision Sheet Metal, Inc.	13141 Molette Street	Santa Fe Springs	CA	90670-0140		USA	(662) 802-26
lited Bignal	2950 East Impedal Hwy	Brea	C/			USA	(714) 998-61
Jilled Signal		Tomenoe	C/				11.147.555.51
llen United		Phoenix	AZ				<del> </del>
Illant Bikes	12075 East Clark Street 848 Rancheros Drive	Santa Fe Springs	CA			USA	T
metek National Controls Corp.	1725 Western Drive	Sen Marcos	CA			USA	(760) 746-35
merican Racing Custom Wheets	19200 South Reyes Ave	West Chicago	11	60185		USA	(630) 231-83
MP Research	23831 Ridge Route	Rancho Dominguez	_			USA	(310) 835-780
naplex	15547 Garfield Ave	Laguna Hilla	CA	92653		ARU	(949) 461-586
pplied Medical Resources	26081 Marit Circle, Building 101	Paramount	CA			USA	
rate Predsion, inc.	425 N. Fax Street	San Fernando	CA			USA	(714) 582-61
rgo Spring Mfg. Co., Inc.	13930 Shoomaket Ave.	Norwalk	CA	91340		USA	(818) 361-543
izona Aircraft Spares	3431 E. Hemisphere Loop	Tuscon	CA	90850 85705		USA	(562) 921-674
rowhead Products	4411 Katella Ave	Los Alamitos	- CA	90720		ABU	(520) 806-066
M Aerospace, Inc.	9812 Lurilne Ave, #L	Chatsworth	CA	91371		UBA	(714) 828-77
sociated Machine Technology, Inc.	890 Mariner Street	Brea	CA	92621		USA	<u> </u>
as Copco Rotoflow	540 E. Rosscrans Ave	Gardena	CA	90248		UBA	(714) 990-817
anoha Street Performence	18239 S. Figueroa St.	Gardena	CA	90248	<del></del>	USA	(310) 329 918
res Corporation	PO Box 3090, One Rockwell Ave	Albany	NY	31708		USA	(310) 532-458
a Pacific Light Metals, Corp	15300 Valley View Ave	La Mirada	CA	90636		USA	(912) 883-144
nd-Tek, (nc.	6346 Industry Way	Westminster	CA	92583	<del></del> -	USA	(310) 404-747
njemin Metal Company	14000 S. Figueros Street	Los Angeles	CA	90069		USA	(714) 892-930
Goodrich Aerospace	850 Leggon Drive	Chula Vista	CA	91910	<del></del>		(323) 321-170
Goodrich Aerospace 9 Industries	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(819) 891-224
	2113 Border Ave	Torrance	CA	90501		USA	(819) 691-224 (310) 633-108
ckburn-Melton Manufacturing Co.	7525 Wynies	Houston	TX	77061	<del></del>	USA	(713) 644-236
eing Aircraft and Missie Systems	PO Box 66742	St. Louis	MO			USA	(713) 644-236
eing Aircraft and Missie Systems	8900 Frost Ave, Bldg 245	Berkley	МО	63134		AZU	<del></del>
Nng Commercial Altplane Group		Wichile	KS			-035	
eing Commercial Airpigne Group eing Commercial Airpigne Group	PO Box 3707	Seattle	WA	98124-2207		USA	(206) 682-677
Ing Douglas Products Officia	Certai Reverying, Bidg 4-63 Engan & North State Street	Renton	WA	98055		ARU	(200) 002-071
Ing Douglas Products Division	PO Box 2731	Long Beach	CA	90801		ARU	
ing Douglas Products Division	1412 B. Harborgate Way	Torrance	CA	90502		USA	·
ing Light Halicopter Division	1215 NOTE 2210 West McDovrell Douglas Way	Sait Lake City	UΥ	84115		ARU	
Ing Space Systems	5000 East McDowell Road 6301 Boiss Ave	Mess	AZ	85216		USA	(602) 691-271
ing Space Systems		Huntington Beach	CA	92647		USA	
ded Technology, Inc.	5222 Rancho Road 14 Aleap Ridge Road	Huntington Beach Cromwell	CA	92847		USA	
co Metals	15090 Northern Street	Le Mirada	CT	06415			(860) 636-1150
os industries, inc.	101 Evans Ave	Dayton	CA NV	90638 89403			(714) 738-4800
Metal Manufacturing & Machining	395 Vernon Way	El Cajon	CA	92020			(702) 246-0451
Tex	16521 Vermont Ave	Paramount	CA	90723			(819) 588-9707
or Space Facility	12031 E. Philadelphia St	Whittier	CA	90723	<del></del>		(562) 531-1616
fornia Avi-Tron Corp	1973 VIa Arado	Rancho Dominguez	CA	90220	<u>-</u>		(310) 045-1681
fornia Furnature Components, Inc.	6780 Central Ave	Riverside		92504-1420			(310) 686-8800
formia Meter Shaping	1704 Hooper Ave	Los Angeles	CA	90021	<del></del>		(909) 687-9255
bmla Pipe & Bending	516 East 65" Place	Los Angeles	CA	90003		USA	(213) 749-5642
lec Machine Products, Inc. er Tool & Méchine Co.	17000 Keegan Ave	Carson	CA	90746			
	6960 Hermosa Circle				1	USA K	(310) 884-3400

Centerline Wheer Corporation	19501 5		4世界	14.3		<b>小产的企业</b>	A TOMA	
Centerfine Tool Corporation	13521 Freeway Orive	Santa Fe Sprin	ge	CA	90870	1	ÜBA	
Central Machina & Tool, Inc.	13521 Freeway Orlve	Sante Fe Spdn	gs	CA	20670	<del> </del>	USA	
Central Tool Corporation	805 Paso Robles Street	Paso Robles			3446	<del> </del>		
	13521 Freeway Orlve	Santa Fe Spring			0670	<del></del>	USA	
Centric Machine	12280 Race Track Road	Tempa				<del></del>	USA	
Century Parts, Inc.	913 West 223" Street	Torrence			3621	<del> </del>	USA	
Certified Aviation Service	3198-H Alron Loop				0502	1	USA	(310) 328-0
Certified Aviation Service (DBA Orbital Sciences Corporation)		Costa Mesa			2826		USA	(714) 682-2
Chemtronice	1301 Skywey Drive	Bakerafield		CA	3308		UBA	
Clary, LLC			$\neg \neg$			<del>                                     </del>		(000) 3812
C.M. Gordon Inducation, Inc.	1739 S. Clementine Street	Anahelm	- 1	SA S	2802		· <del></del>	<del>-   </del>
CNC Manufacturing	13750 Roseçrans Ave.	Santa Fe Spring			0670		USA	
Coest Aluminum & Architectural	42158 Sarah Way	Temecula			2590	<del></del>	USA	(592) 483-7
Const Aluminum & Architectural	687 Sandoval Way	Heyward			4544	<del> </del>	USA	
Coset Aluminum & Architectural (Processing)	10430 Stuether Drive	Santa Fe Spring			0670		USA	(510) 441-8
Coast Metal Creft Inc	18518 Susane Road	Rancho Dominguez				<u> </u>	USA	-
Conquest Industries	9915 Bell Ranch Drive				0221	L	USA	(310) 537-0.
Consolidated Trading Co.(dbs Olympic Aviation)		Santa Fa Springs	IC	A P	0870		USA	(562) 906-1
Continental Force Co.	PO Box 2426, 612 E. Franklin Ave.	El Segundo	C	A 9	3246		USA	(310) 640-2
Coulter Steel & Forge Co.	512 E. Carlin Street	Compton	C	A 9	2222		USA	
	1494 87 <sup>th</sup> Street	Emeryville			1606			(213) 774-31
Craffech Metal Forming	241000-E Water Street	Perrie					USA	(610) 420-3
Cramer Engineering Company	11110 Greenstone Ave				870		USA	(909) 940-64
Cremes Engineering Company	11110 Greenstons Ave	Santa Fe Springs			870		USA	(562) 903-56
Creative Pathways, Inc.	3121 Fujita Street	Santa Fe Springs			870		USA	(682) 903-66
Custom Matel Shapes		Torranca	[C.	A 90	505		USA	(310) 530-19
Custom Motel Splinning	18209 1/2 Eucalyptus Ave	Selflower	C.	A 90	706		USA	1010/ 030-19
Custom Services, Inc.	12157-C Sleuson Ave	Santa Fe Springs			G70			<del></del>
Oyele Science	810 West Hyde Park Blvd	Inglewood	- lä		302		USA	<del></del>
	190 Bosetick Blvd	San Marcos	C,		609		USA	(310) 670-79
Cycle Science (dbe SE Recing)	190 Bossick Blvd	San Marcos					USA	(760) 586-42
Sygnus (no	Emral Ind. Park, POBox 456	Ponderay	- C/		809		USA	(760) 598-42
Davidson Aluminum & Metal Corp.	100 West Industry Court		10		862		USA	(208) 283-47
Detailed Corporation	1520 Flower Ave.	Dear Park	N		729		AEU	(516) 586-80
Osita Fabrication, inc.	9800 De Sob Ave	Duarte	C/		010		UBA	(826) 303-07
esigning Specialities (II	307 N. Euclid Way, Bldg G-3	Chateworth	C/		311		USA	(818) 407-400
ismond National Glass Co. (Div. Of Dismond Worldwide Ind.)		Алалеіт	CA	92	301		USA	
Dirtmaster	6800 De Bla Drive	Peramount	CA	90	723		USA	(714) 778-43
M. Precision	646 Rancheros Drive	San Marcos	CA					(582) 834-210
owney Centerless Grinding	5852 Adems Brvd.	Culver City	CA				USA	(760) 748-354
white Continues a Canding	12323 Bellfower Blvd.	Downey	CA				USA	(213) 938-789
uplicate Parts Company	188 Pacific Street	San Marcos	CA				ABU	
una Plastic Products, Inc.	PO Box 2097, 533 East 3" Street		_				USA	
ynamic Enterprises, Inc.	10015 Greenleaf Ave	Besumont	CA	922	23		USA	(909) 845-31
CI Water Stil Products, Inc.		Sante Fe Springs	CA	906	70		USA	(582) 944-027
mpire Screw Manufacturing Co.	2060 Chilcago Ave., Suite C-8	Riverside	CA	925	07		USA	(1002) 944-027
starline TA Mfg. Company	747 N. Yerle	VIIIa Park	II.	601	AI			+
sterline TA Mfg. Company	PO Box 2500, 375 West Arden Ave.	Glendale	CA				UBA	(630) 833-706
R.C. Company	PO Box 0931, 28065 W. Franklin Parkway	Valencia	CA	913			USA	(818) 240-160
ro Engineering	2970 E. Meria St., Unit #8	Ranche Dominguez		902			L USA	[805] 775-110
	23180 Del Lago Dr.	Laguna Hills					USA	(310) 803-297
reigneen Systems International	4740 Carle Quetzal		CA	926			USA	(949) 770-010
press Metal Aerospace, Inc.	2908 West Pendleton	Camerillo	CA	808	36		USA	(805) 445-649
Tech Monufacturing	1200 Howard Drive	Senta Ana	CA	902	74		USA	1.207 1.8.007
D. Countours		West Chicago	IL.	601	35		USA	(630) 293-0010
Irchild Fasteners	175 Paulerino Ave	Costa Mesa	CA	926	6		USA	
rr Wheel Concepts, Inc.	800 State College	Fullerton	CÄ	928	11		USA	(714) 548-3030
om Moldere & Specialities	735 North Georgia Ave	Azusa	CA	9170				<u> </u>
th Riseon Viking	20004 State Road	Certitos	CA	9070			USA	
ged Metals Inc	1 Erik Circle	Verdi	NV	8943			USA	(582) 924-7757
	10685 Beech Ave	Fontana					UŠA	_
reat Machining, Inc.	25544 Stanford Ave	Valencia	CA	9233			USA	(909) 350-9260
ntter Technologiee	16408 S. Figueroa St.		CA	9135			USÁ	
l-Bore Rece Products	424 W. Roland Ave.	Gardena	CA	9024				(310) 767-1227
on Sagle	3340 East La Palma	Senta Ane	CA	9270	7			(714) 436-0822
on Shared Service A/P		Anaheim	CA	9280	8			
y Plait Manufacturing	PO Box 198	Aurora	II.	4420				(714) 630-5818
y's Tees	PO Box 368, 24195 Orane Ave, Dock #6	Perris	CA	9257	, -   -		USA	
	617 Ocean Front Walk	Venice	CA					(800) 969-0998
neral Kinetos, Incorporated	110 Sunray Drive	Johnstown		9029				(310) 392-3136
neral Veneer Manufacturing Co.	PO Box 1807, 8652 Otts St		PA	1590				(8140 255-6891
nore Matal	Pit 4. Box 98	South Gate	CA	9028				(213) 564-2661
UX Glass, Inc.	850 West Washington Blvd	Bishop	CA	93514				(760) 873-4972
Sander Engineering	3458 North Tolland (IOU BING	Los Angeles	CA	90016				
≈ Tool & Manufacturing Co., Inc.	3155 Kashiwa St.	Torrance	CA	9060				(213) 747-7406
Industries, Inc.	730 24 AVe SE	Minneapolis	MN	55414				(310) 534-1210
mar Corporation (Herman's Metal Spinning Co.)	3601 West Central Ave.	Santa Ana	CA	92704	1			(612) 331-6750
Illi Associates, Ltd.	520 State Street	Glendare	CA					(714) 656-0444
	15505 Minnesota Ava.	Paramount		91209				818) 240-0170
Inton Mold	1906 Quaker Ridge Road		CA	90723				562) 531-1491
What's Ir Development, the false Hayes, Lavareurz (neurosatorial, Iris.)	14800 Firestone Blvd	Ontario	CA	91716				909) 923-2767
era Machining	5912 Clara Street	La Mirada	CA	90638		-	USA	-1023-2101
raft Metal Products	606 E. 184th Street	Bell Gardens	CA	90201				582) 928-0209
uality Alloye		Gardene	CA	90248	1			
ich Curving, Inc.	12329 Telegraph Road		CA	90670				213) 921-0683
er Glass, toc	13211 Florence Ave		CA	90870		<del></del>		562) 941-3264
Welding & Fabrication	1309 S. Eastern Ave.		즚	90022				662) 941-6688
oform USA	[41218 Nick Larne		統			<del></del>		213) 526-1390
	2848 East 208th St			92562	_1		USA (6	909) 698-6997
ospin, Inc.	5004 7		CA	90610				310) 622-0932
och Spinning inc	LLEW Lively Cont. Div.		CA	92649				714) 898-8041
duetrias	1200 11 1 2		CA	90302				
Casting	1308 Mehaid Place	Rancho Dominguaz	CA	90220	-		- 11	310) 673-4488
90 Cycles	5655 Perkins Road		CA	93033	<del></del>			10) 631-8655
,								305) 986-1100
endant Forme Co		-AKE EIBINGTA ''						
enderd Forge Co attoral Architectural Metal Works	400 110		CA	92590 92668			USA (9	09) 678-4576

J & M Metal Spinning		44.00		318		The second second	Mark Tolland
J & M Metal Spinning	4345 Conquista Ave. 1433 1/2 Dalsy Ave.	Lakewood	(0)	90713		USA	
JC Carter	17- 1/2 LASISY AVG.	Long Beach	Ċ/	90813		USA	<del> </del>
J.O. Welding & Febrication	1420 S. Cermenita Road						
Jerames Tool & Mfg.	9366 Abraham Way	Norwelk	CA			AZU	(310) 404
J.S. Screw Mig. Co.	7040 Leurel Canyon Blvd.	Santee North Hollywox	CA			USA	(819) 448
J.W. Lytle Co., Inc.	1585 Sampson	Compa			L	USA	(818) 983-
Earl M. Jorganean Co. (aka Jorgansan Steel & Aluminum )	PO Box 840, 1909 Martin Luther King Jr. Blvd.	Lynwood	CA			USA	(909) 371
K & E Manufacturing, Inc. Kapes	1966 Freeman Ave	Signal Hill	- IĞÂ			USA	(213) 563-
Ken Huff Rading Wheels				3000		USA	(562) 484-
Kepner Plastica Fabricators, Inc.	10827 Carrylyn Orive	Whittler	CA	90603		1104	1.55
Kern Engineering & Mig. Corp.	3131 Lomita Blvd	Топтялсе	CA			USA	(582) 843-6
Kit Pack Co.	1146 East Ash Ave.	Fullerton	CA	92831		USA	(310) 325
KMC Wheel Co.	285 East Thorpe Road	Lae Cruces	NM			USA	(714) 992-C
Kryler Corporation	1456 Columbia Ave	Riverside	CA	92507		USA	(505) 525-2 (909) 764-4
Kuypers Machine Co., Inc.	1217 E. Ash Ave 16842 Hale Ave	Fullerton	CA	P2631	_ <del></del>	USA	1(909) 764-2
Lane & Roderick, Inc.	12640 Allard Sires	enivii	CA	92714		USA	(714) 863-0
Latch Mig. do Benton Machine Works	6100 US 1 North	Senta Fe Spring		90670		USA	(5820 888-
Liege International Corp.	650 Via Alondos	St. Augustine	FL	32085		USA	•
Ling Electronics	4890 E. Le Palme Ave	Cemaniko	CA.	91310		USA	-
Lookheed Martin Aeroperts, Inc.	221 Industrial Park Rd.	mlerlanA	CA	92807		USA	(714) 779-
Marvin Engineering Co	290 W Beech Ave	Johnslown	PA	15904-1961		USA	(814) 262-3
Matteo Forge inc	18443 Minnesola Ave	Inglewood	CA.	90302		USA	(310)674-50
McStarilla Company	1531 W. 240th Street	Peramount	CA	90723		ÜSA	(562) 834-8
Mechanical Metal Finishing Co.	15220 Broadway	Harbor City	CA	90710		USA	(310) 325-20
MetelCenter	12034 Greenstone Ave	Gerdena	CA	90248		USA	(310) 321-10
Metal Forming Mechnes, Inc.	5216 S. Boyle Ave.	Sente Fe Spring		90870		ARU	(562) 944-3
MetaiPro Industries, inc.	28064 Ave. Stanford, Unit 4	Los Angeles	CA	90058		USA	(323) 688-50
Metroline (A Division of Matro-Line Ind., Inc.)	251 Corporate Terrace	Valencia	CA	91355		USA	
MFM Electrologic, Inc.	5215 S. Boyle Ave.	Corona	CA	91719		USA	(909) 371-25
Ailedio Ind.	8821 Suva Street	Los Angeles Bell Gardens	CA	90058		USA	(213) 588-50
(Illenium Alloy Wheels	400 S. Lamon Street	Anaheim	CA	90201		ABU	(562) 928-08
fustang Engineering Co.	12141 Riviers Road	Whittier	CA	92805		USA	(714) 533-07
orth Speciality Products (A Division of Slabe North, Inc.)	2664-B Saturn Street	Brea	CA	90606		USA	(582) 896-07
orth Safety Producte (A Division of Slabe North, Inc.)	2664-B Saturn Street	Brea	CA	92621		USA	(714) 524-18
orthrup Grummen Commercial			CA	92621		USA	(714) 524-16
orthrup Grumman Commercial		Hawthome	~				, , , , , , ,
orthrup Grummen Military	T	Dallas					
orthrup Grumman Military Teobool Fighter Olivision		Melbourne					
= k Alloy Wheels	400 S. Lemon Street	El Segundo	$\perp$				
lympic Avietion	PO Box 2426, 612 E. Franklin Ave.	Aneneim	CA	982805		USA	(714) 533-017
lympic Aviation (dba Consolidated Trading Co.)	PO Box 2425, 612 E. Franklin Ave.	El Bagundo	CA	90245			(310) 640-224
meg Manufecturing, Inc.	1517 West 130" Street	El Segundo	CA	90245			(310) 640-224
otima Wheels, inc.	15300 Valley View Ave	Gardens	CA	90249			(310) 632-687
bliat Aircraft Operation Base	1301 Skyway Drive	La Mirade	CA	90638			(562) 404-747
bital Sciences Corporation	1301 Skyway Drive	Bakersñeld	CA	93308			(805) 381-486
Other Sciences Contraration (star Certified Ariation Services)	1301 Skywsy Drive	Bakersfield	CA	93308			(805) 391-488
A P Febrication	15112 Leffingwei Road	Bakerafield	CA	93308			(805) 391-488
P Menufacturing, Inc.	13130 Arctic Circle	La Minda	CA	90638		USA	
cific Coast Alloy, LLC	1818 E. Roselynn Ave.	Santa Fe Springs	CA	90670			582) 921-364
cific Defense Products	817 S. Lakeview Ave., Suile Q	Placentia	CA	92631		USA [	714) 871-249
amount Roll & Forming, In.c	12120 E. Florence Ave.		CA	92870			714) 777-163
ramount Spring Engineering Co., Inc.	13721 Bora Drive	Santa Fe Springs Senta Fe Springe	CA	90670			310) 944-423
agon Sports Products,LLC	1264 South Lyon Street	Santa Ana	CA	90870			562) 921-278
formance Forged Products	7401 Telegraph Road	Montebelio	CA	92705			714) 835-613
ven Industries	1716 Kone Drive	Compton	CA	90640			213) 722-3460
line Metal Court	13659 Resecrans Ave. Units B & C	Santa Fe Springs	CA	90220		USA (	110) 639 6331
lipe Melal Spinning, Inc.	13859 Rosecrans Ave., Units B & C	Senta Fe Springs	CA	90670		USA (	10) 921-4112
Spe Steel Co.	1368 W. Anahelm Street		CA	90870			10) 921-4112
to Tech Inti, inc.	15791-N Rockfield	Long Beach	CA	90813			62) 435-7571
Clailon MacIning Sheetmatal	2250 n. Forbes, Suite 101	Tuesso	CA	82718			14) 458-1880
cision Resource, California Division	5603 Engineer Drive	Tuscon	AZ	85745			20) 622-0050
gallon Tube Bending	13626 Telc St	Huntinton Beech	CA	92649		- 17	14) 891-4439
ane industries	154 S. Valencia Street	Santa Fe Springs		90870			10) 921-5723
Mill, Inc.	1509 N. Kramer Blvd, Unit N	Glandors		91741		117	18) 335-3836
ess Fab, Inc.	15644 Clarifon Circle	Anchelm Sonta Es Savissa		92506			14) 630-2082
GR, #E.	9740 Jordan Circle	Senta Fe Springs		90670			26) 921-1979
a blaw a Machining, Inc.	4869 McGrath Street	Santa Fe Springe Ventura		90070			52) 946-2402
Alcord Services	3929 E. Guasti Road, Unit A	Ontario		93003			05) 844-7884
9 Markins	1893 S. Newcomb	Porterville		91761		SA (9	09) 805-0688
I MACE AND A STATE OF THE STATE	5179 Brooks, Unit A	Monteleir		33257		ISA (20	9) 784-9110
	1815 West 205" Street, Sutte 203	Torrance		91769		SA (P	9) 821-2193
	340 North Eckhoff	L		0501			0) 782-6025
int Mig., Inc.	1905 Regentview Ave.	Orenge		2858			41 834-2078
ice Matel Center	715 Jeffsreon Street, N.E.	Downey		0241			2) 862-1174
metal ratificators, Inc.	221 E. Warner Ave	Albuquerque		1109			5) 345-0959
ar cri warmi turintine	050 S. Western Ave., PO Box 47630	Santa Ana		2705			4) 542-2104
	arreters Tecate-Ensenada KM 4	Los Angeles	CA 900	17-0630			3) 753-3771
	450 Hill street	Tecale B.C.					52 885
Inc (Acquired by BF Goodrigh)	50 Lagoon Orive	El Cajon		2020			9) 447-3838
"~ (~~Quired by Et Connector)	ay Bivd at G Street, Bidg 79	Chula Vista		1910			9) 691-2249
	317 Fairwood Ave	Chula Vieta		1910			9) 681-2249
In the leading to the last of	901 Airport Orive			4619			3) 726-5116
Kbyce	- NICHT STATE	Torrence	CA 8	0505	- US		0) 539-0508
		i	- 1		<del></del>	1,31	-,
Metal Spinning (aka: Airport Forming) 11	7293 Denvin Ave. #43				1		
	7293 Darwin Ave, #12 O Box 1035			2346	JE	SA /781	956-1050

Surgent Flatcher Inc	9400 F Fleir Ave	THE PERSON NAMED IN	W CV			The state of the s	200
Course, u.e.,	1801 E. El Segundo Blvd.			1 4 1131-5808		USA	(626) 402-20
Setalite Mtg. Co.	13151 E. Florence Ave.	El Segundo	c		<del> </del> -	USA	
Schultz Engineering Corp.	5785 Thornwood Orive	Santa Fe Springe			1	USA	(310) 322-47 (714) 739-44
Scepko Tube Swaging & Machining	17000 S. Western Ave, #17	Goleta	Ċ,	93117-3601		USA	(805) 964-22
8.E. Recing	190 Bosstick Blyd	Gerdene	C	90247		USA	
S.E. Racing (dba Cycle Science)	190 Bosstick Blvd	San Marcos	C	92069	<del></del> -	USA	(310) 515-87
Serior Featurition, Inc. Staintees Steel Products Division		San Marcos	C/	92069		USA	(619) 598-92
Sky Rider Equipment Co., Inc.	2980-N San Fernando Blvd	Burbank	C/	91504-2566		USA	(619) 598-92
Skyeparee Parts, Inc.	2851 E. White Star Ave., Suite B 15700 Figueroa	Anahelm	c/			USA	(818) 841-919
SMS Technologiae Co.	9711 Meson Ave	Gardena	_ C/	90248		UBA	(714) 632-686
Sonfarrei, Inc.	3000-3100 La Jolla	Chateworth	CA	91311		USA	(909) 351-077
Southwest United Industries	422 South Saint Louis	Anaheim	CA	92806		UBA	(818) 998-073
Southern California Matala	9970 Bell Ranch Drive	Tuisa	OX	74120		USA	(714) 630-728
Specialty Fabrications, Inc.		Senta Fe Springs	CA	90670		USA	ļ
Spin-Mex, inc.	2221 Meders Road	Slmi Valley	JCA	93065			(562) 941-181
Square Tool & Machine Co., Inc.	10626 Dolores Ava	South Gale	CA	90280		USA	(806) 579-973
standard Industries, Inc.	9730 Factorial Way	So. El Monte	CA	91733		USA	
Stein Industries, Inc.	1440 S. Allec Street	Anahelm	CA	92805		USA	(626) 442-445
superior Engineering	4005 West Artasis Ave.	Fullerian	TCA	92833		USA	(714) 956-711
upreme Castings & Pattern Co. Inc.	10794 Los Vaqueros Circle	Los Alamitos	CA	90720			(714) 522-456
Wiff-Cor	1165 Kraemer Place	Anshelm	CA			USA	(714) 995-842
-D Metarials	344 W 157th SI	Gardene	CA	92808		USA	•
echni-Gast Corp.	2068 E. 37th Street	Los Angeles	CA	90248		USA	(310) 354-1200
echniform Metal Curving, Inc.	11220 South Gerfield	South Gate	GA	90058		USA	(323) 232-6171
	375 S. Caclus Ave	Rigito		90280		ABU	(562) 923-4585
eledyne Ryen he Trident Company		TARRING	CA	92378			(908) 877-6686
hreaded Fastener Engineering	1430 E. Weinut Ave.	Fullerton	100				322727
emay Metals Engineering	1714 S. Grove Ave, Unit B	Ontaria	CA	92631		USA	(714) 441-2796
	2600 Madne Ave	Redando Beach	CA	91762			(909) 923-8767
omic Golf & Skil Co. Mfg. Inc.	23102 Mariposa Ave	Torrance	CA	90278			(310) 576-0184
	4450 A Dupont Court	Ventura	CA	90802			(213) 775-8162
oy Lighting, Inc., Cuxtom Division	14625 East Clark Ave.	Industry	CA	93003		USA	14.47 77.0-0102
ue Form (TFI Acquisition inc dbs) Ident Products	12120 Park St	Certitoe	CA	91745		USA	(626) 335-4511
o Metal Stamping		Carretoe	CA	90703			(310) 926-9819
o warm preuding	16318 East Prodor Ave.		1				010/020-0018
be Technologies, Inc.	1565 Consumer Circle	Industry	CA	91745		USA (	(626) 338-1228
o Tool & Die Co., Inc.	3340 West El Segundo Blvd.	Carone	CA	91720			909) 371-4878
werelly Corprellon for Atmospheric Research	PO Box 3000, 1850 Table Mass Drive	Hawthome		90250-4892			2491 371-4878
versity of Californie at Invine, Physical Sciences Dept.	Reines Hall, Room 8003	Boulder	CO	80307-3000			213) 772-1335
solo /hreading Co.	14002 Anson Ave	Invine		2697-4675		10	303) 497-8787
rring, Inc	8511 Whitaker Ave	Santa Fe Springe	CA	90670	<del></del>		949) 824-8048
ber Metale & Supply Ca., Inc.		Buena Park	CA	90521		USA (	562) 802-1868
lle Manufacturing Co.	PO Box 318, 18706 Garfield Ave.	Paramount		0723-0318			714) 523-5055
stem Machining Company, Inc.	PO Box 280, 2 Erik Circle	Verdl	NV	59439		USA (8	682) 602-0260
etern Metal Spinning & Mig. Co.	1370 Acada Ave			2831-5316			775) 345-0444
lis Machine, Inc.	5055 Western Way		CA	92572			714) 502-9066
	1445 Donlon Street, Suite 3		CAL	93003		USA (8	000) 657-0711