

# State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE Governor

KIM GUADAGNO Lt. Governor

February 5, 2010

Dear Resident of Pompton Lakes,

The New Jersey Department of Environmental Protection (NJDEP) has considered the request by residents to choose their own contactor to install vapor mitigation systems. We agree, and I am pleased to provide the enclosed package which contains information that you need if you choose to select your own contractor to install a sub-slab vapor mitigation system. NJ DEP, the U.S. Environmental Protection Agency (EPA), the New Jersey Department of Health and Senior Services (NJ DHSS) and the Agency for Toxic Substances and Disease Registry (ATSDR) agree that installation of these systems is an essential step to reduce the threat of vapor intrusion from the underlying ground water contamination beneath your home.

DuPont, the entity responsible for conducting the remediation, has contracted with O'Brien and Gere to perform the installation of the sub-slab mitigation systems in the vapor mitigation area under a workplan approved by both the NJ DEP and EPA. Please note that choosing your own contractor is not required and you may still engage with DuPont to install a mitigation system. However, if you choose to select your own contractor, you will be required to enter into a contract with the installer and you will manage the contract during all phases of the work as described in detail below. NJDEP and EPA will continue to review and inspect systems that have been installed and will provide assistance to those who choose their own contractor.

The first step you will need to take towards hiring a contractor for this project will be to identify one that meets the criteria established for this project. To participate in this program you will be required to enter into a contract with one of the following business individuals:

- A Certified Radon Mitigation Business; or
- Licensed Site Remediation Professional <u>with experience in the oversight and installation</u> of sub-slab depressurization systems; or
- Licensed Professional Engineer with experience in the oversight and installation of subslab depressurization systems.

A list of Certified Radon Mitigation Businesses is included as Item #1 in this package and can be found at <u>www.nj.gov/dep/rpp/radon/certmit2.htm</u> A list of Licensed Site Remediation Professionals is also included in Item #1. This list may be subject to change and should be consulted periodically at the following web page:

www.nj.gov/dep/srp/srra/lsrp/temporary\_lsrp\_list.htm.

BOB MARTIN Acting Commissioner Once you have entered into your contract, you and your contractor must submit to the NJDEP and EPA the form in Item #2 of this package. This form documents that you have entered into this program with an appropriate contractor and that the contractor will adhere to the approved Scope of Work (SOW).

Item #3 in this package entitled "Scope of Work - Installation of VI Mitigation Systems, Pompton Lakes, Passaic County", is for you, the homeowner, to provide to an approved contractor of your choosing. This document will provide step-by-step requirements for the contractor to follow when installing a mitigation system. Upgrades to the installation requirements as documented in the NJDEP Vapor Intrusion Guidance Document have been made to this SOW in an effort to match the standards in the DEP and EPA approved workplan. These enhanced requirements from the current Vapor Intrusion Guidance Document are not required state-wide at this time, but are being specifically required in Pompton Lakes.

NJDEP, EPA and DuPont all recognize that, in certain circumstances, the need for an alternative design and installation may be needed. Such circumstances have included property affected by a high water table or the existence of clays in the soil that result in sub-standard communication testing (see Scope of Work, Design requirements). If an alternative plan is required to achieve proper depressurization of the slab, the contractor must communicate with NJDEP prior to finalizing plans for permit approval.

Item #4 is a cost guide for you to present to your contractor along with the Scope of Work. DuPont is prepared to pay for customary and reasonable charges associated with the installation project. This cost guide provides acceptable charges anticipated for each phase of the installation project. Any costs outside the range of acceptable costs will be considered by NJDEP and EPA on a case-by-case basis only. There is no guarantee that costs above those provided in Item #4 will be paid to you and neither NJDEP nor EPA will be held responsible for unapproved costs. Reasonable and acceptable attempts have been made to account for variations in cost for items required for this project as well as life-expectancy expectations for the products being used.

As there are multiple phases to the installation process, NJDEP and EPA have developed an agreed upon payment program for this work to be conducted. DuPont will place appropriate funds into an escrow account to be released by an independent party upon NJDEP or EPA approval of each phase, as identified in the Scope of Work. See Item #4 for details.

If you have any questions about this package, or would like to discuss further, support is available to you by contacting either Mindy Mumford, NJDEP Office of Community Relations at (609) 777-1976 or David Kluesner, EPA Public Affairs Officer at (212) 637-3653.

Future communications and updates regarding this program will also be available shortly via an email list serve. I would strongly recommend you and your contractor sign up for this list serve.

It will be available to you this week at www.nj.gov/dep/srp/community/sites/dupont\_pompton\_lakes/

Sincerely, Wene Kropp

Assistant Commissioner Site Remediation Program

Enclosures

#### Radon Mitigation Businesses Certified in New Jersey Valid as of: 01/06/2010

This list is provided as a public service. Though the DEP certifies these businesses, it does not endorse or guarantee the performance or services provided. Since this list is revised periodically, please contact the DEP Radon Section toll-free within New Jersey at (800) 648-0394 or outside New Jersey at (609) 984-5425 to determine if the list has been updated.

Under the name of each business is its certification number. This number should be present on all paperwork received through the business.

Next are letters abbreviating the type(s) of building the business is certified to mitigate. R = Residential; N = Non-residential; S = Schools; and D = Day Care Centers.

Mitigation Business Name	Mailing Address County	Telephone Number(s)	
AIRON RADON SYSTEMS, INC. MIB90062	24 JENNY JUMP AVE GREAT MEADOWS, NJ 07838 WARREN	(908) 637-8804 (908) 735-7900	
(R N D)			
AMERICAN REMEDIAL SVC INC MIB90096	PO BOX 523 MILFORD, NJ 08848 HUNTERDON	(908) 995-4477	
(R N)			
CP SOLAR AND HOME ENERGY SERVICES MIB92743	9 ARENA ST MANTUA, NJ 08051 GLOUCESTER	(609) 820-8958	
(R N S D)			
HERA TECH INC MIB90025 (R N S D)	1879 OLD CUTHBERT RD STE 1 CHERRY HILL, NJ 08034 CAMDEN	(856) 429-5200	
HERA TECH INC MIB90025 (Branch Office)	9 WESTWOOD DR MANTUA, NJ 08051 GLOUCESTER	(856) 464-0102	
HPC/ HUNTERDON PEST CONTROL INC MIB90010	62 STATE ROUTE 31 HAMPTON, NJ 08827 HUNTERDON	(908) 537-2820	
(R N S D)			
MICHAEL D. HUBER INC. MIB90023	2510 SPRUCE AVE HAINESPORT, NJ 08036 BURLINGTON	(609) 261-7374 (800) 339-0089	
(R N S D)			

OBAR SYSTEMS INC. MIB90013	117 POCANTECS RD HIGHLAND LAKES, NJ 07422 SUSSEX	(973) 697-0112 (800) 949-6227
(R N S D)		
OBAR SYSTEMS INC. MIB90013 (Branch Office)	10 OAK RIDGE RD NEWFOUNDLAND, NJ 07435 PASSAIC	(973) 697-0112
PROFESSIONAL RADON SYSTEMS, INC. MIB90026	27 KRAMER DR PARAMUS, NJ 07652 BERGEN	(201) 652-0072
(R N S D)		
PROFESSIONAL RADON SYSTEMS, INC. MIB90026 (Branch Office)	299 FOREST AVE PARAMUS, NJ 07652 BERGEN	(201) 652-0072
RADATA INC. MIB90001	27 IRONIA RD UNIT 2 FLANDERS, NJ 07836 MORRIS	(973) 927-7303
(R N S D)		
RADIATION DATA MIB90016	PO BOX 150 SKILLMAN, NJ 08558 SOMERSET	(609) 466-4300
(R N S D)		
RADIATION DATA MIB90016 (Branch Office)	ALPHA CONCEPTS/ A DIV. OF RADIATION DATA 121 MAPLE AVE HACKETTSTOWN, NJ 07840 WARREN	(908) 269-8091
RADON SCIENTIFIC, INC. MIB90039	200 B CAMPUS DR MORGANVILLE, NJ 07751 MONMOUTH	(732) 972-3666
(R N)		
RADON SPECIALISTS LLC/A-1 RADON SPECIALISTS MIB90124	134 BROAD ST STE 3 STROUDSBURG, PA 18360 OUT OF STATE	(800) 756-7236 (908) 813-1001
(R)		
ROCK-WELL ENVIRONMENTAL INC. MIB90104	101 CORNELL AVE SOMERDALE, NJ 08083 CAMDEN	(856) 784-5541 (888) 526-6197

(R N S D)		
SOOS RADON & ELECTRIC, INC MIB90027 (R N)	25 PHEASANT RUN DR SKILLMAN, NJ 08558 SOMERSET	(908) 359-0356 (908) 256-5760
SOOS RADON & ELECTRIC, INC MIB90027 (Branch Office)	2 PALERMO DR TINTON FALLS, NJ 07724 MONMOUTH	(732) 542-8993
SOOS RADON & ELECTRIC, INC MIB90027 (Branch Office)	7 RINGOES MILL DR HOPEWELL, NJ 08525 MERCER	(609) 466-6700

# SRP Licensed Site Professionals as of January 15, 2010

License #	LSRP Name	License Type	Address	City	State	Business Phone #
511332	MICHAEL AKERBERGS	SRP-TEMPORARY LSRP	URS	Wayne	NJ	(973) 812 - 6882
509366	BENJAMIN ALTER	SRP-TEMPORARY LSRP	GZA GEOENVIRONMENTAL INC	Fairfield	NJ	(973) 774 - 3309
505738	JEFFREY W ANDERSON	SRP-TEMPORARY LSRP	ATLANTIC ENV SOLUTIONS INC	Hoboken	NJ	(201) 876 - 9400
505648	GARY A ANGYAL	SRP-TEMPORARY LSRP	OBRIEN & GERE	Edison	NJ	(732) 225 - 7380
511048	YILMAZ ARHAN	SRP-TEMPORARY LSRP	S&S ENVIRONMENTAL SCIENCES INC	Cedar Grove	NJ	(973) 239 - 6001
510323	JOHN M ASH	SRP-TEMPORARY LSRP	AMO ENVIRONMENTAL DECISIONS INC	DANBORO PA	PA	(215) 230 - 8282
511017	MANAL BABA	SRP-TEMPORARY LSRP	PMK GROUP	Cranford	NJ	(908) 418 - 7848
508609	DAVID F BACKMAN	SRP-TEMPORARY LSRP	BIRDSALL SERVICES GROUP INC	Eatontown	NJ	(732) 380 - 1700
507740	THOMAS BAMBRICK	SRP-TEMPORARY LSRP	FIRST ENVIRONMENT INC	Boonton	NJ	(973) 334 - 0003
509370	JAMES M BARISH	SRP-TEMPORARY LSRP	GANNETT FLEMING INC	Hamilton	NJ	(609) 584 - 9592
510502	CARYN L BARNES	SRP-TEMPORARY LSRP	LANGAN ENG AND ENV SERVICES INC	PHILADELPHIA PA	PA	(215) 446 - 2921
510329	JEFFREY T BAUER	SRP-TEMPORARY LSRP	WHITESTONE ASSOC INC	CHALFONT PA	PA	(215) 712 - 2700
513548	DAVID S BAUSMITH	SRP-TEMPORARY LSRP	DEWBERRY	Parsippany	NJ	(908) 328 - 8509
510694	DONALD M BELLO	SRP-TEMPORARY LSRP	BELL ENVIRONMENTAL CONSULTANTS INC	Flanders	NJ	(862) 432 - 9532
507621	CHRISTOPHER R BERIONT	SRP-TEMPORARY LSRP	PRIME ENVIRONMENTAL & ENGINEERING	Morris Plains	NJ	(973) 326 - 8800
510387	JORGE H BERKOWITZ	SRP-TEMPORARY LSRP	LANGAN ENGINEERING & ENV SERVICES	Trenton	NJ	(609) 815 - 3233
514064	RAO V BHAGAVATHULA	SRP-TEMPORARY LSRP	EG&R ENVIRONMENTAL SERVICES	Somerset	NJ	(732) 425 - 9618
505651	KENNETH J BIRD	SRP-TEMPORARY LSRP	10 DUFF RD STE 500	ALLEGHENY	PA	(412) 241 - 4500
508100	HAROLD M BLAINE	SRP-TEMPORARY LSRP	PRACTICAL ENV SOLUTIONS LLC	Washington	NJ	(908) 835 - 2510
509298	ROBERT P BLAUVELT	SRP-TEMPORARY LSRP	EWMA	Parsippany	NJ	(973) 560 - 1400
510498	BRIAN A BLUM	SRP-TEMPORARY LSRP	LANGAN ENG AND ENV SERVICES INC	Elmwood Park	NJ	(201) 398 - 4538
509050	JOHN F BOLAKAS	SRP-TEMPORARY LSRP	STANTEC	CHESTER PA	PA	(484) 343 - 4943
509395	PAUL J BOVITZ	SRP-TEMPORARY LSRP	WESTON SOLUTIONS INC	Edison	NJ	(732) 417 - 5815
506244	THOMAS J BRADY IV	SRP-TEMPORARY LSRP	PT CONSULTANTS INC	Bellmawr	NJ	(856) 251 - 9880
507609	JOHN M BRENNAN	SRP-TEMPORARY LSRP	BRENNAN ENVIRONMENTAL INC	Summit	NJ	(908) 918 - 1702
506285	PHILIP I BRILLIANT	SRP-TEMPORARY LSRP	BRILLIANT LEWIS ENVIRONMENTAL SERVICES	Toms River	NJ	(732) 818 - 3380

510697	LAURA A BRINKERHOFF	SRP-TEMPORARY LSRP	BRINKERHOFF ENV SERVICES INC	Manasquan	NJ	(732) 223 - 2225
509384	RICHARD D BRITTON	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
511436	DAKON E BRODMERKEL	SRP-TEMPORARY LSRP	СН2М	PHILADELPHIA PA	PA	(610) 280 - 0924
510321	GARY R BROWN	SRP-TEMPORARY LSRP	RT ENVIRONMENTAL SERVICES INC	KING OF PRUSSIA PA	PA	(610) 265 - 1510
512052	JOHN J BRZOZOWSKI	SRP-TEMPORARY LSRP	ENVIROSURE INC	WEST CHESTER PA	PA	(215) 279 - 7974
505551	GREGORY E BUZAN	SRP-TEMPORARY LSRP	122 WALTERS AVE	Ewing	NJ	(609) 883 - 8021
507622	GLENN A CALABRESE	SRP-TEMPORARY LSRP	RBA GROUP	Parsippany	NJ	(973) 946 - 5614
507912	WILLIAM CALL	SRP-TEMPORARY LSRP	BIRDSALL SERVICES GROUP/PMK GROUP INC	Eatontown	NJ	(732) 380 - 1700
509042	JOHN F CALLAGHAN	SRP-TEMPORARY LSRP-UST ONLY	CALMAR ASSOC LLC	Dorothy	NJ	(609) 476 - 4500
511323	WILLIAM A CANAVAN	SRP-TEMPORARY LSRP	HYDROENVIRONMENTAL SOLUTIONS INC	SOMERS NY	NY	(914) 276 - 2560
511447	DAVID J CARLSON	SRP-TEMPORARY LSRP	CUSTOM ENV MGT CO	Hainesport	NJ	(609) 238 - 5886
509756	GREGORY C CARR	SRP-TEMPORARY LSRP	TYREE ENVIRONMENTAL CORP	Cinnaminson	NJ	(631) 300 - 6413
509728	JAMES J CHENARD	SRP-TEMPORARY LSRP	68 DRY RD	Blairstown	NJ	(908) 362 - 1112
511983	JOSEPH P CHIAPPETTA	SRP-TEMPORARY LSRP	GEI CONSULTANTS	Montclair	NJ	(973) 666 - 0694
508619	JAMES M CLABBY	SRP-TEMPORARY LSRP-UST ONLY	571 W LAKE AVE STE 2	Bay Head	NJ	(732) 295 - 2144
509039	GEOFFREY K CLARK	SRP-TEMPORARY LSRP	HATCH MOTT MACDONALD	Millburn	NJ	(973) 912 - 2472
506534	KEITH CONLIN	SRP-TEMPORARY LSRP	ENVIRONMENTAL COMPLIANCE MONITORING	Hillsborough	NJ	(908) 874 - 0990
506527	JAMES CONNOR	SRP-TEMPORARY LSRP	TAYLOR WISEMAN & TAYLOR	CHALFONT	PA	(267) 956 - 1020
507796	GERARD M COSCIA	SRP-TEMPORARY LSRP	LANGAN ENG AND ENVIRON SERVICES INC	Elmwood Park	NJ	(201) 398 - 4609
508099	ANDREW COZZI	SRP-TEMPORARY LSRP	BLUESTONE ENVIRONMENTAL SERVICES LLC	Somerset	NJ	(732) 469 - 5188
509870	HOWARD R CRAIG	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 366 - 9500
511336	MARION E CRAIG	SRP-TEMPORARY LSRP	URS CORP	Wayne	NJ	(973) 812 - 6879
508215	CHRISTOPHER W DAILEY	SRP-TEMPORARY LSRP	GEI	Mount Laurel	NJ	(856) 608 - 6860
509387	KAREN D'AMANDA	SRP-TEMPORARY LSRP	T SLACK ENVIRONMENTAL SERVICES INC	Kenilworth	NJ	(908) 964 - 5360
510326	KEITH T D'AMBROSIO	SRP-TEMPORARY LSRP	WHITESTONE ASSOCIATES INC	CHALFONT PA	PA	(215) 712 - 2700
508604	JULIAN J DAVIES	SRP-TEMPORARY LSRP	SOVEREIGN CONSULTING INC	Parsippany	NJ	(201) 874 - 6193
507736	PAUL M DEBLASIO	SRP-TEMPORARY LSRP	36 CLERMONT DR	Clermont	NJ	(609) 602 - 2972
508610	MATTHEW G DEMAIO	SRP-TEMPORARY LSRP	DEMAIOS INCORPORATED	Egg Harbor	NJ	(609) 965 - 4094
512873	KEVIN J DE MAURET	SRP-TEMPORARY LSRP	INNOVATIVE ENVIRONMENTAL CONSULTANTS	Brick	NJ	(732) 255 - 3839

510695	THOMAS C DEMICHELE	SRP-TEMPORARY LSRP	MATRIX NEW WORLD ENGINEERING INC	East Hanover Twp	NJ	(973) 240 - 1800
508209	NICHOLAS DEROSE	SRP-TEMPORARY LSRP	LANGAN ENG AND ENVIRON SERVICES INC	Warrington	PA	(215) 491 - 6500
513845	WILLIAM A DESTEFANO	SRP-TEMPORARY LSRP	VAN NOTE HARVEY ASSOC	Princeton	NJ	(609) 439 - 3253
512877	JEFFREY C DEY	SRP-TEMPORARY LSRP	RESOURCE GROUP MGT LLC	Moorestown	NJ	(856) 273 - 1009
509747	LAWRA J DODGE	SRP-TEMPORARY LSRP	EXCEL ENVIRONMENTAL RESOURCES INC	North Brunswick	NJ	(732) 545 - 9525
509883	RONALD F DOONEY	SRP-TEMPORARY LSRP	TERMS ENV SERVICES INC	Berkeley Heights	NJ	(908) 464 - 0028
505546	ANDREW R DRAKE	SRP-TEMPORARY LSRP	HANDEX CONSULTING & REMEDIATION NE LLC	Monroe	NJ	(609) 409 - 6999
511634	ANDREW W DROTLEFF	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(908) 528 - 1460
512053	RAYMOND P DUCHAINE	SRP-TEMPORARY LSRP	ENVISION INC	CLAYMONT DE	DE	(215) 592 - 1546
510229	BRYAN L EMILIUS	SRP-TEMPORARY LSRP	RESOURCE CONTROL CORPORATION	Moorestown	NJ	(856) 273 - 1009
505636	BRYAN P FALLUCCA	SRP-TEMPORARY LSRP	PHOENIX CONSULTING LLC	PHOENIXVILLE	PA	(610) 935 - 3527
510230	JEFFREY D FARRELL	SRP-TEMPORARY LSRP	PS&S LLC	Warren	NJ	0 -
510480	BRIAN R FENNELLY	SRP-TEMPORARY LSRP	ERM INC	Ewing	NJ	(609) 895 - 0050
509875	ROBERT T FENZ	SRP-TEMPORARY LSRP	BETTS ENV SERVICES CORP	Butler	NJ	(973) 838 - 5844
509056	RODGER A FERGUSON JR	SRP-TEMPORARY LSRP	SADAT ASSOC INC	Trenton	NJ	(609) 826 - 9600
509386	JOHN C FERRANTE	SRP-TEMPORARY LSRP	E2 PROJECT MANAGEMENT LLC	Rockaway	NJ	(973) 299 - 5200
511391	N BRET FISCHER	SRP-TEMPORARY LSRP	ACCUTECH ENVIRONMENTAL SERVICES	Keyport	NJ	(732) 739 - 6444
509385	MARK D FISHER	SRP-TEMPORARY LSRP	THE ELM GROUP INC	Princeton	NJ	(609) 683 - 4848
513292	MARK R FOLEY	SRP-TEMPORARY LSRP	WSP ENVIRONMENT & ENERGY	Somerset	NJ	(732) 564 - 0888
513524	GEOFFREY R FORREST	SRP-TEMPORARY LSRP	DRESDNER ROBIN	Pennsauken	NJ	(201) 681 - 9832
508217	JASON L FREE	SRP-TEMPORARY LSRP	629 CREEK RD	Bellmawr	NJ	(856) 304 - 6815
513049	KEITH R GAGNON	SRP-TEMPORARY LSRP	GES	Neptune	NJ	(800) 220 - 3068
509397	ROBERT J GASCOYNE	SRP-TEMPORARY LSRP	WESTON SOLUTIONS	Edison	NJ	(732) 417 - 5865
508254	JOHN GEAR	SRP-TEMPORARY LSRP	ENVIRO-SCIENCES OF DELAWARE INC	Mount Arlington	NJ	(973) 398 - 8183
509382	TODD R GERBER	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
506298	WILLIAM B GILCHRIST	SRP-TEMPORARY LSRP	ROUX ASSOCIATES	West Deptford Twp	NJ	(856) 423 - 8800
508696	ARTHUR F GOELLER	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(973) 564 - 6006
506242	KENNETH GOLDSTEIN	SRP-TEMPORARY LSRP	RANSOME ENVIRONMENTAL	Mercerville	NJ	(609) 584 - 0090
511025	MICHAEL J GONGLIK III	SRP-TEMPORARY LSRP	STANTEC CONSULTING CORP	Mount Laurel	NJ	(856) 234 - 0800

508210					D٨	(610) 337 - 3630
500219						(010) 337 - 3030
507906	MATTHEW J GORDON	SRP-TEMPORARY LSRP	URS CORP	FORT WASHINGTON	PA	(215) 367 - 2531
510334	CAROL S GRAFF	SRP-TEMPORARY LSRP	CSG ENVIRONMENTAL CONSULTANTS INC	Trenton	NJ	(609) 393 - 4442
513046	JOHN J GRELIS IV	SRP-TEMPORARY LSRP	GRELIS ENVIRONMENTAL SERVICES LLC	East Windsor	NJ	(609) 426 - 0641
510683	THOMAS T GRIFFIN	SRP-TEMPORARY LSRP	ENVIRONMENTAL RESOURCES MGT INC	Ewing	NJ	(609) 403 - 7531
509872	PETER L GROGAN	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(973) 564 - 6006
510698	DOUGLAS L HARM	SRP-TEMPORARY LSRP	BRINKERHOFF ENV SERVICES INC	Manasquan	NJ	(732) 223 - 2225
509745	RONALD A HARWOOD	SRP-TEMPORARY LSRP	EXCEL ENVIRONMENTAL RESOURCES INC	North Brunswick	NJ	(732) 545 - 9525
507896	AMIT HARYANI	SRP-TEMPORARY LSRP	BUREAU VERITAS NORTH AMERICA INC	Edison	NJ	(732) 762 - 4275
505650	MARK HASTING	SRP-TEMPORARY LSRP	HILLMANN ENVIRONMENTAL GROUP LLC	Union	NJ	(908) 688 - 7800
513530	JERRY L HAUG	SRP-TEMPORARY LSRP	VIRIDIAN INC	Upper Montclair	NJ	(973) 746 - 7600
508212	CHRISTOPHER J HOEN	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(973) 564 - 6006
512625	REBECCA K HOLLENDER	SRP-TEMPORARY LSRP	TRC	Millburn	NJ	(973) 715 - 6180
508248	CRAIG M HOPKINS	SRP-TEMPORARY LSRP	CTM ENVIRONMENTAL	Swedesboro	NJ	(609) 319 - 8265
507741	JEFFREY L HOSTERMAN	SRP-TEMPORARY LSRP	TETRA TECH	BOOTHWYN	PA	(610) 364 - 2123
509737	MARC D HUDOCK	SRP-TEMPORARY LSRP	GZA GEOENVIRONMENTAL INC	Fairfield	NJ	(908) 803 - 1014
508252	TODD A HUFFMAN	SRP-TEMPORARY LSRP	JM SORGE	Somerville	NJ	(908) 895 - 1877
511394	EDWARD J HUSS JR	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 299 - 1553
505548	JOSEPH T JACOBSEN	SRP-TEMPORARY LSRP	INTEX ENVIRONMENTAL GROUP INC	PIPERSVILLE	PA	(215) 766 - 7230
513048	PETER JARAN	SRP-TEMPORARY LSRP	EQUITY ENV ENGINEERING LLC	Flanders	NJ	(973) 527 - 7451
514705	RICHARD A JASAITIS	SRP-TEMPORARY LSRP	KLEINFELDER	Hamilton	NJ	(609) 584 - 5271
509879	STEVEN K JONES	SRP-TEMPORARY LSRP	PIONEER ENV GROUP LLC	Mercerville	NJ	(609) 586 - 4447
506291	AJAY KATHURIA	SRP-TEMPORARY LSRP	THE LOUIS BERGER GROUP	Morristown	NJ	(973) 407 - 1376
505618	RICHARD J KATZ	SRP-TEMPORARY LSRP	PENNJERSEY ENVIRONMENTAL CONSULTING	NEWTOWN PA	PA	(215) 860 - 1231
509309	LANNY M KATZ	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 366 - 9500
506257	Paul J Kenny	SRP-TEMPORARY LSRP	REMINGTON & VERNICK ENGINEERS INC	Haddonfield	NJ	(856) 795 - 9595
509367	STEPHEN A KESSEL	SRP-TEMPORARY LSRP	BROWN AND CALDWELL	Allendale	NJ	(551) 427 - 7654
513541	KRISTINE N KESSEL	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 271 - 6546
510232	WAHID S KHAN	SRP-TEMPORARY LSRP	ENVIRON INTERNATIONAL CORP	Princeton	NJ	(609) 243 - 9821

508618	SAM W KLICKOVICH	SRP-TEMPORARY LSRP	THE EC GROUP LLC	Hammonton	NJ	(609) 704 - 9990
512070	SALIH KOKOL	SRP-TEMPORARY LSRP	HYDRO-ENV TECHNOLOGIES	Beachwood	NJ	(732) 742 - 7826
505727	Richard J Konkowski	SRP-TEMPORARY LSRP	ENVIRONMENTAL RESOURCES MANAGEMENT	Ewing Twp	NJ	(609) 403 - 7513
505646	CHRIS KORSHALLA	SRP-TEMPORARY LSRP	MASER CONSULTING	Mount Arlington	NJ	(973) 398 - 3110
512051	ROBERT Y KOTO	SRP-TEMPORARY LSRP	LANGAN ENG AND ENV SERVICES	Elmwood Park	NJ	(201) 398 - 4566
510517	WILLIAM D KRAFT III	SRP-TEMPORARY LSRP	ENVIRON INTERNATIONAL CORP	Princeton	NJ	(609) 243 - 9844
508214	HENRY LAIRD	SRP-TEMPORARY LSRP	URS CORP	FORT WASHINGTON	PA	(215) 367 - 2522
509392	PRADEEP LAMBA	SRP-TEMPORARY LSRP	ENVIRONMENTAL ENGINEERING CORP	Madison	NJ	(973) 360 - 9111
509759	PAUL I LAZAAR	SRP-TEMPORARY LSRP	SOVEREIGN CONSULTING INC	Robbinsville	NJ	(609) 259 - 8200
511061	SUI Y LEONG	SRP-TEMPORARY LSRP	H2M ASSOC INC	Parsippany	NJ	(862) 207 - 5900
510226	RICHARD D LEV	SRP-TEMPORARY LSRP	MELICK-TULLY AND ASSOCIATES PC	South Bound Brook	NJ	(732) 356 - 3400
508603	JONATHAN LISKO	SRP-TEMPORARY LSRP	BROWNFIELD ASSOC INC	Belmar	NJ	() -
510385	JOHN W LOVE	SRP-TEMPORARY LSRP	ENVIRONMENTAL COMPLIANCE & CONTROL INC	Randolph	NJ	(973) 989 - 8010
510696	JEFFREY F LUX	SRP-TEMPORARY LSRP	JF LUX ASSOCIATES INC	Tabernacle	NJ	(609) 859 - 3890
509037	JAMES P MACK	SRP-TEMPORARY LSRP	NJIT YORK CTR OF ENV ENG & SCIENCE	Newark	NJ	(908) 448 - 6566
512866	PEARSE C MACKLE	SRP-TEMPORARY LSRP	BIRDSALL SERVICES GROUP INC	Eatontown	NJ	(732) 380 - 1700
512049	MICHAEL V MALONE	SRP-TEMPORARY LSRP	STANTEC CONSULTING	WEST CHESTER PA	PA	(302) 559 - 6871
508608	JOHN M MARION	SRP-TEMPORARY LSRP	CALMAR ASSOCIATES LLC	Dorothy	NJ	(609) 476 - 4500
511988	GILBERT J MARSHALL JR	SRP-TEMPORARY LSRP	MARSHALL GEOSCIENCE INC	COLLEGEVILLE PA	PA	(610) 454 - 1172
506557	GREGORY D MARTIN	SRP-TEMPORARY LSRP	ROUX ASSOCIATES INC	West Deptford Twp	NJ	(856) 423 - 8800
509881	KURT A MARTIN	SRP-TEMPORARY LSRP	MASER CONSULTING PA	Hamilton	NJ	(732) 546 - 7513
510677	VANCE M MATTHEWS	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(201) 874 - 6654
510515	WILLIAM H MATULEWICZ	SRP-TEMPORARY LSRP	T&M ASSOCIATES	Moorestown	NJ	(856) 722 - 6700
511040	MATTHEW J MAURO	SRP-TEMPORARY LSRP	EXCEL ENVIRONMENTAL RESOUCES INC	North Brunswick	NJ	(732) 545 - 9525
510516	CHRIS R MCCARDELL	SRP-TEMPORARY LSRP	1060 ANDREW DR STE 140	WEST CHESTER PA	PA	(610) 840 - 2544
511338	KAREN MCGAHAN	SRP-TEMPORARY LSRP	BROOKSIDE ENVIRONMENTAL CONSULTING LLC	Pennington	NJ	(609) 818 - 1700
513259	KEVIN A MCGUINNESS	SRP-TEMPORARY LSRP	BROWN AND CALDWELL	Allendale	NJ	(201) 574 - 4700
509052	SHARON MCSWIENEY	SRP-TEMPORARY LSRP	EWMA	West Windsor Twp	NJ	(609) 799 - 7300
510510	ROBERT J MEISNER	SRP-TEMPORARY LSRP	HYDRO-ENVIRONMENTAL TECHNOLOGIES INC	Beachwood	NJ	(732) 818 - 1800

513867	MARK E MENEGHIN	SRP-TEMPORARY LSRP	CREW ENGINEERS	Butler	NJ	(973) 951 - 7486
509753	MICHAEL J MERINEY	SRP-TEMPORARY LSRP	EXCEL ENVIRONMENTAL RESOURCES INC	North Brunswick	NJ	(732) 545 - 9525
509754	ERIC J MERTZ	SRP-TEMPORARY LSRP	EXCEL ENVIRONMENTAL RESOURCES INC	North Brunswick	NJ	(732) 545 - 9525
509374	MICHAEL N METLITZ	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
510994	ERIC J MEYER	SRP-TEMPORARY LSRP	PMK GROUP INC	Cranford	NJ	(973) 216 - 2413
505603	ANDREW MICHALSKI	SRP-TEMPORARY LSRP	MICHALSKI & ASSOC INC	South Plainfield	NJ	(908) 757 - 8867
508716	MOH MOHIUDDIN	SRP-TEMPORARY LSRP	ARCADIS US INC	Edison	NJ	(201) 669 - 8420
507735	MICHAEL D MOORE	SRP-TEMPORARY LSRP	PARS ENVIRONMENTAL INC	Robbinsville	NJ	(609) 890 - 7277
511984	MICHAEL J MORIARTY	SRP-TEMPORARY LSRP	MORIARTY ENV SOLUTIONS	COLMAR PA	PA	(215) 997 - 1745
509876	DAVID J MORRIS	SRP-TEMPORARY LSRP	LORAX LLC	Denville	NJ	(201) 852 - 1128
511562	MICHAEL M MORRIS	SRP-TEMPORARY LSRP	GOLDER ASSOC INC	Mount Laurel	NJ	(856) 793 - 2005
509372	KING K MOY	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 366 - 9500
506289	DAVID MUSCALO	SRP-TEMPORARY LSRP	PO BOX 780	Lafayette	NJ	(973) 875 - 4685
510224	THOMAS MYERS	SRP-TEMPORARY LSRP	ENVIRONMENTAL COMPLIANCE INC	Warren	NJ	(908) 754 - 1700
510690	MICHAEL L MYHOWICH	SRP-TEMPORARY LSRP	229 MAIN ST PO BOX 608	Andover	NJ	(201) 653 - 2406
508605	PETER G NAUMOFF	SRP-TEMPORARY LSRP	URS CORP	Wayne	NJ	(973) 785 - 0700
510877	WILLIAM F NEHLS	SRP-TEMPORARY LSRP	INDUSTRIAL WASTE MANAGEMENT INC	Middlesex	NJ	(732) 271 - 1490
511060	CHRISTOPHER B NEUFFER	SRP-TEMPORARY LSRP	ENVIROTACTICS INC	Wall	NJ	(732) 449 - 0077
513639	JOHN L NEWMAN	SRP-TEMPORARY LSRP	STANTEC	Mount Laurel	NJ	(609) 752 - 2801
506277	PETRE M NICULESCU	SRP-TEMPORARY LSRP	GEOGRAPHIC SERVICES	Cherry Hill	NJ	(856) 229 - 7018
513636	PETER L NIMMER	SRP-TEMPORARY LSRP	20 HELLBROOK LN	ULSTER PARK NJ	NY	(917) 655 - 5123
513295	NICHOLAS O NOCE	SRP-TEMPORARY LSRP	DRESDNER ROBIN	Asbury Park	NJ	(732) 988 - 7020
509884	PATRICK G NOCERA	SRP-TEMPORARY LSRP	ARECON LTD	Bordentown	NJ	(609) 298 - 0770
508607	JOSEPH G NORTON	SRP-TEMPORARY LSRP	NORCON ENVIRONMENTAL	Hackettstown	NJ	(908) 852 - 6046
505558	MICHAEL J NOVAK	SRP-TEMPORARY LSRP	ATLANTIC ENV SOLUTIONS INC	Hoboken	NJ	(201) 876 - 9400
505632	JOSEPH P NOVELLI	SRP-TEMPORARY LSRP	PRACTICAL ENV SOLUTIONS LLC	Washington	NJ	(908) 835 - 2510
511408	JOHN J OBERER	SRP-TEMPORARY LSRP	GZA GEOENVIRONMENTAL INC	FORT WASHINGTON PA	PA	(215) 591 - 3800
513052	CLEMENT OCKAY	SRP-TEMPORARY LSRP	ENVIRON	Princeton	NJ	(609) 243 - 9825
508218	ROBERT OESTREICH	SRP-TEMPORARY LSRP	38 OLD BEAVER RUN RD	Lafayette	NJ	(973) 579 - 3397

			0	TI CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OF THE OWNER OF THE OWNER OWNER OWNER OF THE OWNER		1
512872	JEAN M OLIVA	SRP-TEMPORARY LSRP	TRC	WINDSOR CT	СТ	(860) 298 - 6232
513846	KEVIN D ORABONE	SRP-TEMPORARY LSRP	ECC HORIZON	Randolph	NJ	(973) 989 - 8010
505638	FRANK J PACE	SRP-TEMPORARY LSRP-UST ONLY	PO BOX 566	Millville	NJ	(856) 327 - 2400
512627	WILLIAM M PARRY	SRP-TEMPORARY LSRP	H2M ASSOC INC	Parsippany	NJ	(862) 207 - 5900
509758	JOHN M PASTORICK	SRP-TEMPORARY LSRP	PS&S LLC	Warren	NJ	(732) 584 - 0228
505634	MITTUL M PATEL	SRP-TEMPORARY LSRP	BEM SYSTEMS INC	Chatham	NJ	(908) 598 - 2600
506259	DEVANG R PATEL	SRP-TEMPORARY LSRP	CONESTOGA-ROVERS & ASSOC	Edison	NJ	(732) 225 - 0308
509048	KENNETH N PAUL	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 366 - 9500
509299	WILLIAM S PENDEXTER	SRP-TEMPORARY LSRP	ECOLSCIENCES INC	Rockaway	NJ	(973) 366 - 9500
507774	JAMES L PETERSON	SRP-TEMPORARY LSRP	PRINCETON GEOSCIENCE INC	Princeton	NJ	(609) 279 - 0008
508690	JOHN PETURA	SRP-TEMPORARY LSRP	APPLIED ENVIRONMENTAL MANAGEMENT INC	MALVERN	PA	(610) 247 - 0028
509300	VALERIE J PHIPPS	SRP-TEMPORARY LSRP	SOVEREIGN CONSULTING	Cherry Hill	NJ	(609) 870 - 1726
509760	MARK E PIETRUCHA	SRP-TEMPORARY LSRP	WOODARD & CURRAN	East Windsor	NJ	(609) 448 - 8110
510500	STEPHEN E POSTEN	SRP-TEMPORARY LSRP	AMEC EARTH & ENVIRONMENTAL	Somerset	NJ	(732) 302 - 9500
511637	JOHN C POTENZA	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(973) 493 - 5271
512623	JEFFREY C POWLEY	SRP-TEMPORARY LSRP	TRC ENVIRONMENTAL CORP	Millburn	NJ	(973) 564 - 6006
505550	SURESH PUPPALA	SRP-TEMPORARY LSRP	ENVAERONAUTICAL ENGINEERING PC	Hopatcong	NJ	(973) 979 - 3145
508617	ERIC J RAES	SRP-TEMPORARY LSRP	ENG AND LAND PLANNING ASSOC INC	Clinton	NJ	(908) 238 - 0544
509874	PETER J RANDAZZO	SRP-TEMPORARY LSRP	BROWN AND CALDWELL	Allendale	NJ	(201) 574 - 4700
509044	EDWARD P RASHAK	SRP-TEMPORARY LSRP	SHAW ENVIRONMENTAL INC	Trenton	NJ	(609) 588 - 6313
509368	BARRY J RAUS	SRP-TEMPORARY LSRP	GEI CONSULTANTS	Mount Laurel	NJ	(856) 608 - 6860
507610	ROY J REDMOND	SRP-TEMPORARY LSRP	HATCH MOTT MACDONALD	Millburn	NJ	(973) 379 - 8745
509877	PERRY J REFOLO	SRP-TEMPORARY LSRP	TTI ENVIRONMENTAL INC	Moorestown	NJ	(856) 840 - 8800
506269	ROY J RITTMAN	SRP-TEMPORARY LSRP	APPLIED EARTH SOLUTIONS INC	Metuchen	NJ	(732) 548 - 9050
505336	ANDREW W ROBINSON	SRP-TEMPORARY LSRP	GROUNDWORK INC	Verona	NJ	(973) 857 - 5033
507620	DAVID S ROBINSON	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
513528	DENNIS I RUBIN	SRP-TEMPORARY LSRP	C/O GZA GEO ENVIRONMENTAL INC	Fairfield	NJ	0 -
507907	DAVID J RUSSELL	SRP-TEMPORARY LSRP	AECOM	TREVOSE	PA	(215) 244 - 7102
509053	PAUL D SAKSON	SRP-TEMPORARY LSRP	PAUL D SAKSON ASSOCIATES INC	Red Bank	NJ	(732) 539 - 6543

511688	JUAN P SALGUERO	SRP-TEMPORARY LSRP	L ROBERT KIMBALL & ASSOC INC	EBENSBURG PA	PA	(814) 242 - 4533
508611	JOHN R SAMMON	SRP-TEMPORARY LSRP	WOODWARD CURRAN	East Windsor	NJ	(732) 740 - 3975
507614	KEITH P SAVEL	SRP-TEMPORARY LSRP	PRIME ENVIRONMENTAL INC	Morris Plains	NJ	(973) 326 - 8800
512320	JASON M SCHINDLER	SRP-TEMPORARY LSRP	CMX ENGINEERING	Manalapan	NJ	(732) 577 - 9000
507894	ERIC SCHLAUCH	SRP-TEMPORARY LSRP	HUDSON ENVIRONMENTAL SERVICES INC	Matawan	NJ	(732) 970 - 6700
511986	CHRISTOPHER F SCHMITT	SRP-TEMPORARY LSRP	HALEY ALDRICH	Parsippany	NJ	(973) 658 - 3904
505552	WILLIAM H SCHNITZERLING	SRP-TEMPORARY LSRP	SHAW ENVIRONMENTAL INC	Trenton	NJ	(609) 584 - 8900
511056	CHRISTOPHER SEIB	SRP-TEMPORARY LSRP	WHITESTONE ASSOC INC	Warren	NJ	(908) 668 - 7777
513050	MARC H SELOVER	SRP-TEMPORARY LSRP	ENVIRONMENTAL RESOLUTIONS INC	Mount Laurel	NJ	(856) 235 - 7170
507615	FREDERICK J SHOYER III	SRP-TEMPORARY LSRP	SYNERGY ENVIRONMENTAL INC	Cherry Hill	NJ	(856) 874 - 4448
510380	STEPHEN A SHUKAITIS	SRP-TEMPORARY LSRP	THE PREFERRED TANK GROUP LLC	Clifton	NJ	(973) 418 - 1717
510324	RANDY L SHULER	SRP-TEMPORARY LSRP	ERM	Ewing	NJ	(609) 403 - 7529
507608	WILLIAM B SILVERSTEIN	SRP-TEMPORARY LSRP	ROUX ASSOC INC	West Deptford Twp	NJ	(856) 423 - 8800
506496	RICHARD W SISTI	SRP-TEMPORARY LSRP	SRW ENVIRONMENTAL SERVICES INC	Point P Beach Boro	NJ	(732) 701 - 9232
509046	PETER C SMITH	SRP-TEMPORARY LSRP	ECC HORIZON	Randolph	NJ	(973) 989 - 8010
508599	RICHARD J SNYDER	SRP-TEMPORARY LSRP	CONESTOGA-ROVERS & ASSOC	Edison	NJ	(732) 225 - 0308
510682	THEODORE H SOBIESKI	SRP-TEMPORARY LSRP	TRISTATE ENV MGT SERVICES INC	BENSALEM PA	PA	(215) 588 - 7396
507737	JOSEPH M SORGE	SRP-TEMPORARY LSRP	JM SORGE INC	Somerville	NJ	(908) 218 - 0066
514847	PETER R SPINNEY	SRP-TEMPORARY LSRP	PETER R SPINNEY LLC	Andover	NJ	(973) 786 - 5288
513053	DENNIS M STAINKEN	SRP-TEMPORARY LSRP	PRINCETON-SOMERSET GROUP INC	Hillsborough	NJ	(908) 369 - 6890
513546	CHARLES L STEBBINS JR	SRP-TEMPORARY LSRP	DEWBERRY	Parsippany	NJ	(973) 576 - 9641
505544	BASIL N STEPHANATOS	SRP-TEMPORARY LSRP	687 INDIAN ROAD	Wayne	NJ	(973) 897 - 8162
505545	KATHLEEN F STETSER	SRP-TEMPORARY LSRP	ROUX ASSOC INC	West Deptford Twp	NJ	(856) 423 - 8800
506274	MICHAEL A STONE	SRP-TEMPORARY LSRP	ALLEGIANCE ENVIRONMENTAL SERV LLC	Morristown	NJ	(973) 656 - 9684
511697	EDWARD L SULLIVAN	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
512055	KENNETH T SWIDER	SRP-TEMPORARY LSRP	FREY ENGINEERING LLC	Lebanon	NJ	(908) 238 - 0502
506245	NAZMI M TALIMCIOGLU	SRP-TEMPORARY LSRP	BIRDSALL SERVICES GROUP/PMK GROUP INC	Cranford	NJ	(917) 257 - 6976
509373	DAVID B TERRY	SRP-TEMPORARY LSRP	LEGGETTE BRASHEARS & GRAHAM INC	Ramsey	NJ	(201) 818 - 0700
510231	MALAYANDY THIAGARAM	SRP-TEMPORARY LSRP	YU & ASSOCIATES INC	Elmwood Park	NJ	(201) 815 - 0699

510998	ANDREW C THOMAS	SRP-TEMPORARY LSRP	STANTECH CONSULTING COMPANY	Mount Laurel	NJ	(215) 297 - 9328
507776	DAVID L THOMPSON	SRP-TEMPORARY LSRP	LFR INC	Branchburg Twp	NJ	(908) 685 - 7847
510221	NATHAN T THOMPSON	SRP-TEMPORARY LSRP	ENV MANAGEMENT ASSOCIATES INC	Farmingdale	NJ	(732) 939 - 6755
511404	KEITH TOCKMAN	SRP-TEMPORARY LSRP	WHITESTONE ASSOC INC	Warren	NJ	(303) 670 - 6905
506261	DANIEL R TODER	SRP-TEMPORARY LSRP	HATCH MOTT MACDONALD	Freehold	NJ	(732) 333 - 3282
510223	JOSEPH TORLUCCI JR.	SRP-TEMPORARY LSRP	ENVIRONMENTAL COMPLIANCE INC	Warren	NJ	(908) 754 - 1700
510511	KEVIN J TOTH	SRP-TEMPORARY LSRP	ENVIROTRAC	South Plainfield	NJ	(908) 757 - 1900
509041	ROSS TRUBE	SRP-TEMPORARY LSRP	CAMP DRESSER AND MCKEE INC	Edison	NJ	(732) 590 - 4620
509399	BEHRAM TURAN	SRP-TEMPORARY LSRP	ICON ENGINEERING INC	MONMONTH JUNCTION	N NJ	(732) 951 - 2101
510331	THOMAS K UZZO	SRP-TEMPORARY LSRP	WHITESTONE ASSOC INC	Warren	NJ	(908) 668 - 7777
511989	MICHAEL J VAN DER HEIJDEN	SRP-TEMPORARY LSRP	WOODARD & CURRAN	WHITE PLAINS NY	NY	(914) 448 - 2266
512328	DAVID J VOLZ	SRP-TEMPORARY LSRP	SOVEREIGN CONSULTING INC	Cherry Hill	NJ	(856) 325 - 2099
509054	JAMES A WAGNER	SRP-TEMPORARY LSRP	301 RT 17 N	Rutherford	NJ	(732) 904 - 4321
510672	DENISE C WAITE	SRP-TEMPORARY LSRP	STANTEC CONSULTING	WEST CHESTER PA	PA	(610) 888 - 3461
513287	THOMAS B WALDRON	SRP-TEMPORARY LSRP	THE LOUIS BERGER GROUP INC	Morristown	NJ	(973) 328 - 5869
513290	ROBERT J WALSH	SRP-TEMPORARY LSRP	RJ WALSH ASSOC INC	Allentown	NJ	(609) 371 - 7433
505637	ANDREW D WARING	SRP-TEMPORARY LSRP	ERFS	Lakewood	NJ	(732) 370 - 6640
511054	CHARLES D WARNER III	SRP-TEMPORARY LSRP	FRENCH & PARRELLO ASSOC PA	Wall	NJ	(732) 690 - 9175
507779	MICHAEL D WEAVER	SRP-TEMPORARY LSRP	ATLANTIC ENVIR CONSULTING SERVICES	Warren	NJ	(908) 755 - 2240
508616	HENRY D WEIGEL	SRP-TEMPORARY LSRP	ADAMS REHMANN & HEGGAN ASSOC INC	Hammonton	NJ	(609) 561 - 0482
512072	JOHN H WEITZ	SRP-TEMPORARY LSRP	ANCO ENVIRONMENTAL SERVICES INC	Berkeley Heights	NJ	(732) 688 - 6985
510378	JAIMIE B WERNER	SRP-TEMPORARY LSRP	ENVIROTRAC LTD	South Plainfield	NJ	(908) 757 - 1900
505652	IRA L WHITMAN	SRP-TEMPORARY LSRP	WHITMAN	East Brunswick	NJ	(732) 390 - 5858
509371	KATHLEEN M WHOOLEY	SRP-TEMPORARY LSRP	AECOM ENVIRONMENT	Piscataway	NJ	(732) 564 - 3644
509729	ROBERT WORKMAN	SRP-TEMPORARY LSRP	ENVIRO-SCIENCES OF DELAWARE INC	Mount Arlington	NJ	(973) 398 - 8183
512621	JAIME L WUELFING	SRP-TEMPORARY LSRP	GES INC	Neptune	NJ	(800) 220 - 3068
509765	ALEX A YANKASKAS	SRP-TEMPORARY LSRP	ECM INC	Hillsborough	NJ	(908) 874 - 0990
508211	DANIEL YONKERS	SRP-TEMPORARY LSRP	PHEONIX CONSULTING LLC	PHOENIXVILLE	PA	(610) 935 - 3527
512622	DAVID ZAILIK	SRP-TEMPORARY LSRP	GES INC	Neptune	NJ	(800) 220 - 3068

262						
508612	KEVEN G ZIEGLER	SRP-TEMPORARY LSRP	BRENNAN ENVIRONMENTAL INC	Summit	NJ	(908) 918 - 1702
512323	ROBERT L ZELLEY	SRP-TEMPORARY LSRP	MASER CONSULTING	Clinton	NJ	(908) 238 - 0900
511445	JOHN M ZDEPSKI	SRP-TEMPORARY LSRP	JMZ GEOLOGY	Flemington	NJ	(908) 788 - 0505
508216	MOHAMMAD R ZAMAN	SRP-TEMPORARY LSRP	NAJARIAN ASSOCIATES	Eatontown	NJ	(732) 389 - 0220

#### <u>Item #2</u>

Please remit to: New Jersey Department of Environmental Protection Site Remediation Program Frank Faranca Bureau of Case Management P.O. Box 028, 401 E. State Street, 5<sup>th</sup> Floor Trenton, NJ 08625-0028



Homeowner Information
(Part 1 of 2)

Homeowner Name		
Address		
City/Town	State	Zip Code
Phone	_Fax	
Email Address		

Certification Statements: (All certifications are required. Please initial.)

\_\_\_\_\_I have been provided and understand the cost guidelines and payment process for the mitigation systems and understand that any costs in excess to the guidelines requires NJDEP or EPA pre- approval.

\_\_\_\_\_I understand that as the homeowner I will be payed for costs for an approved mitigation system that are within the cost guidelines.

\_\_\_\_\_I understand that as the homeowner I am responsible throughout the implementation of the Scope of Work for managing a contractor and paying for this project.

\_\_\_\_\_I understand that my contractor is responsible for implementation of the Scope of Work including the design, installation, maintenance, and monitoring of the mitigation system.

Homeowner Signature\_\_\_\_\_

Date\_\_\_\_\_



#### Selected Contractor Information (Part 2 of 2)

Contractor Name		
Address		
City/Town	State	Zip Code
Phone	Fax	
Email Address		
Cell Phone #		
Applicable License Information: (Must com	nplete at least one.)	
<ul> <li>Certified Radon Mitigation Business License</li> </ul>	#	
<ul> <li>Licensed Site Remediation Professional Licence</li> <li>Please attach a list of contaminated site addresses.</li> </ul>	nse # es where you have installed v	apor mitigation systems, along with the
<ul> <li>Professional Engineer License #</li></ul>	es where you have installed v	apor mitigation systems, along with the
Certification Statements: (All certifications ar	e required. Please initial.)	
I have been provided a copy of the Sco mitigation in accordance with the Scope of Wor	ope of Work and agree to con rk.	nduct only the required vapor
I have been provided the cost guidelin information, as required by NJDEP or EPA and	es and will provide any estim d will adhere to the guideline	ates or cost information or technical s.

\_\_\_\_\_I understand that any cost overruns may not be reimbursable unless pre-approved by NJDEP or EPA.

Contractors Signature \_\_\_\_\_

Contractors License #\_\_\_\_\_

Date \_\_\_\_\_

# <u>Item # 3: Scope of Work</u> Installation of VI Mitigation Systems Pompton Lakes, Passaic County

#### **Design**

- 1. Arrange dates for design visit.
- 2. Complete Communication Testing and related actions (see Design Requirements, page 2).
- 3. Consult with homeowner about system design requirements (e.g., system suction points, piping and fan location, vent pipe material, electrical tie-ins, fan cover).
- 4. Record the communication test results and all related design activities in a standardized checklist.
- 5. Prepare a drawing of the system design.
- 6. Get homeowner's sign-off on final design drawings.
- 7. Submit design drawings to borough and obtain appropriate permits (construction/electrical). In addition, submit design drawings and supporting design information to NJDEP/USEPA for sign-off.
- 8. After permit approval and NJDEP/USEPA sign-off, arrange date for installation from homeowner.
- 9. Notify NJDEP/USEPA inspectors 2 weeks in advance of the installation.

## **Installation**

- 1. Install the mitigation system consistent with the Installation Requirements (page 4) and inspection checklist (Attachment A).
- 2. Arrange date for system inspection by borough.
- 3. Notify NJDEP/USEPA when the installation is complete for final inspection.

# Post-Mitigation Process & Reporting

- 1. Arrange dates for post-mitigation confirmation process no less than 30 days after commissioning.
- 2. As part of the post-mitigation confirmation process, collect indoor air and ambient air samples.
- 3. Prepare Remedial Mitigation Report (RMR) consistent with the Post-Mitigation Process & Reporting Requirements (page 6).
- 4. Submit all air analytical results with the RMR to NJDEP/USEPA for review.

# **Operation & Maintenance (O&M)**

- 1. Arrange dates for quarterly (every three months) inspections of mitigation system for the first year following commissioning. Reduction to annual inspections after the first year may be appropriate (with NJDEP/USEPA approval).
- 2. Conduct the O & M inspection consistent with the O&M Requirements (page 8).

# **Design Requirements**

For active subsurface depressurization (SSD) systems, a communication test is required for each structure as part of the design phase to assist in the determination of the suction point location(s) and fan size. In addition, a communication test must then be conducted at the time of installation to confirm that the installed suction point(s) is depressurizing the entire building slab. <u>The principal design criterion is the depressurization of the entire slab.</u>

The test involves drilling an extraction hole in the same location where the suction point is expected to be installed and applying suction (using a shop vacuum or similar device). The extent of the suction field is then determined at observation holes placed at representative locations (roughly four corners) across the slab in unobtrusive spots such as utility closets. Digital micromanometers or other types of small differential-pressure monitoring devices are utilized to quantify the suction field at the observation holes. The vacuum at the extraction point shall be recorded. The communication test shall be conducted under "worst case conditions" during which the structure is maximally depressurized (with all windows and doors closed and while running the furnace, hot water heater, dryer, fan vents, etc.).

In structures where the concrete slab is highly deteriorated with major cracks (or there is a dirt floor), actions may be required to repair the slab (or install a new slab) prior to the implementation of the communication test. Consult with the NJDEP/USEPA before installing a new slab. However, this provision is not applicable to crawl spaces with dirt floors.

Suction fields below the slab may be interrupted by existing subslab features (e.g., grade beams, footings, foundation walls) and require the installation of additional suction points. In other situations, drain pipes and sump pumps can be utilized as suction points if properly sealed and converted.

Under the maximum building depressurization, the sub-slab depressurization systems must achieve a pressure differential of at least 0.004 inches of water across the entire slab. Deviations from this value may be considered in cases where subsurface soils/fill are highly permeable and large volumes of air can be evacuated with little pressure drop. Under these parameters, air is to be drawn through the sub-slab soils, diluting the contaminants in the subsurface. Thus, sub-slab ventilation (instead of depressurization) reduces the concentration of contaminants entering the building. In these situations, a smoke test shall be employed to verify proper ventilation under the entire slab. Sub-slab ventilation (SSV) systems have been installed (full or partial) in a very limited number of houses within the Pompton Lakes plume area.

Alternative mitigation systems other than sub-slab or submembrane depressurization systems may be identified based on the results of the initial design. Any alternative mitigation system, including SSV systems, must be approved by NJDEP/USEPA in advance of installation.

Backdraft tests must be performed on all appliances and heating systems in the lowest floor that exhaust combustion gasses during their operation (e.g., heaters, clothing dryers, hot water heaters). Backdraft tests are performed during design and immediately following installation to check if a preexisting backdraft condition exists in the home and to ensure the mitigation system does not create a backdraft condition. The backdraft test that is performed is a "simple smoke visualization test". Chemically generated smoke (inert smoke-like fine powder) is released around the exhaust vents or intakes of the above listed appliances and the stream of smoke should move toward the opening indicating air flow movement. This test should be performed under maximum building depressurization conditions (exterior and interior doors and windows closed, and with any exhaust systems on – kitchen fans, bathroom fans, clothing dryer and heater). This procedure is described in the USEPA document "Radon Reduction Techniques for Detached Houses" (EPA/625/R-93/011), Section 11.5.1.

For buildings with accessible crawlspaces, submembrane depressurization (SMD) systems are the most common and effective mitigation system. SMD systems employ a membrane as a substitute for the slab to permit depressurization of the soils. A proper seal must be established with the membrane and all edges of the foundation wall or footings, as well as any pipe penetrations through the membrane. SMD systems are typically used in combination with SSD systems. The Design Phase must assess the ability to utilize an SMD system for existing accessible crawlspaces.

Inaccessible crawlspaces can be mitigated using ventilation. Ventilation is provided in the crawlspace using a 1- or 2-inch pipe. The design target velocity is calculated based on the crawlspace volume, pipe size, and a target air exchange rate of 0.70 air exchanges per hour. A sample port shall be installed in the pipe to measure air velocity.

Both accessible and inaccessible crawlspaces that are isolated from the main basement area can also be mitigated by natural ventilation – either through existing vents or through the installation of additional vents. The adequacy of the ventilation shall be determined based on one square foot of opening per 150 square feet of crawlspace.

Building–specific modifications shall be implemented to the mitigation system and related components when disabilities or significant concerns of the occupants necessitate it. For example, the alarm system (required for ALL systems) shall be installed in an appropriate place on the first floor for people that have hearing problems or difficulties walking up or down stairs.

The installer shall work with all homeowners to identify the locations for the external fan, system suction points, overhead piping, and the alarm system. In addition, the homeowner can decide whether they want the fan discharge (vent) pipe made of aluminum downspout or PVC piping. Fan covers, while not technically necessary, shall be installed unless the homeowner requests otherwise.

In situations where a building already has a radon system installed, the installer is required to evaluate the effectiveness of the system to mitigate the vapor intrusion pathway using the same protocols that are applied to every other building. In addition, the NJDEP's Bureau of Environmental Radiation has additional procedures the installer must conduct to meet the radon requirements for buildings with radon systems. If an existing radon system needs modification to meet the vapor intrusion design requirements described above, a New Jersey certified radon mitigation business must be contracted to complete the radon mitigation work, including the collection of pre- and post-modification radon samples in accordance with NJDEP requirements.

Prepare a drawing of the system design (slab floor plan and fan/stack elevation detail) with the relevant system piping, fan, system suction points, communication test points, communication test suction holes, communication test results, combustion devices tested for back-draft, and plan notes.

The installer should recognize that modifications to the design drawings may become apparent during system installation. Minor modifications are to be expected. All modifications are to be noted on the final as-built drawings and described (with technical justification) in the Remedial Measures Report.

## **Installation Requirements**

The NJDEP has developed a Vapor Intrusion Mitigation System Inspection Checklist that identifies a series of technical design requirements for subsurface depressurization systems. The Checklist covers a variety of technical issues, including system installation and interior piping, general sealing, electrical, SMD, sump pits, monitors and labeling, system vent discharge point, fan installation, and design drawing and as-built drawing requirements. Unless specifically approved by the NJDEP/USEPA, all items contained in the Checklist shall be incorporated into the design for any subsurface depressurization system. Modifications may be required during the installation of the mitigation system due to site-specific building factors and/or preferences of the occupant/owner.

System suction points shall be constructed by drilling a hole through the slab and excavating a 10-20 inch pit with a depth of 10 inches. The pit shall be backfilled with crushed stone.



The fan and vertical ventilation pipe shall be located on the exterior of the building. An accessible sampling port shall be installed on the vertical vent pipe. A bypass for condensation drainage shall be provided for the fan to prevent condensate freezing and blockage.

A pressure gauge (e.g., U-tube manometer) shall be mounted in a conspicuous place (NOT inside a crawlspace) at each system suction point to allow occupants to monitor the pressure differential. For pipes installed into inaccessible crawlspaces or submembrane depressurization systems with readings less than -

0.50 inches of water, U-tube manometers with a resolution of 0.125 inches of water shall be installed. An audible alarm shall also be installed to alert occupants in the event of a system malfunction. Labels

shall be placed on system components that identify the purpose of the system, as well as the name and phone number of a contact in case there are any problems. In the electrical panel, the appropriate electrical breaker or fuse that powers the mitigation system shall be labeled.

Sealing of accessible cracks and openings in foundations walls and floor slabs is required to avoid short-circuiting of the negative pressure field and to increase the efficiency of the system. Major visible cracks and those indicating connection with the subsurface in floors and walls shall be sealed. These cracks are identified through smoke testing (when the vapor mitigation system is operating). A practical rather than exhaustive level of sealing will generally result in a more conservative design, because the design is not relying on a completely sealed building shell in order to meet performance objectives, and seals may deteriorate over time.



Proper sealing around suction point

To fill wall and slab cracks and prevent air leakage, polyurethane sealants (or similar products) shall be utilized. Sealants containing "low" or no volatile organic compounds are highly recommended.

To reduce the potential for vapors to migrate into structures, utility conduits shall be sealed at the terminus with the structure. These seals shall be constructed using insulating foam sealants (or similar inert gas-impermeable material).

Sumps may provide a preferential pathway for vapors to migrate into a structure. Mitigation designs must include measures to seal these entryways. Air tight covers should be installed over sumps that prevent vapor intrusion, allow for periodic access and still permit active dewatering.

Floor drains that are not connected to the municipal sewer shall be replaced with Dranjer-type devices that allow water to travel down the drain but do not allow vapors to migrate up the drain.

Submembrane depressurization (SMD) systems are to be installed using 60 mil ethylene propylene diene monomer (EPDM) membrane. A proper seal must be established with the membrane and all edges of the foundation wall or footings, as well as any pipe penetrations through the membrane. Each seam of the EPDM membrane (e.g., around the suction point, along the basement wall,



where two pieces of membrane were connected together) shall be smoke tested to ensure there are no leaks.

Once installed, the system shall be commissioned to verify that it is functioning consistent with the mandated performance specifications and to establish an operational baseline. Depending on subsurface conditions (e.g., high moisture content), additional time may be necessary for the sub-slab area to reach equilibrium. Thus, the baseline performance measurements collected during the initial system commissioning may have to be modified during the first quarterly inspection or verification sampling event.

A communications test shall be conducted to confirm that a pressure differential of at least 0.004 inches of water have been established across the slab under maximum building depressurization. The investigator shall substantiate that back-drafting is not occurring due to the operation of the subsurface depressurization system. After the successful completion of the communication test, the static pressure at each suction point and at the fan inlet, as well as flow measurements for inaccessible areas and sub-slab ventilation systems, shall be recorded (to serve as the operating baseline).

The investigator shall describe and point out the various components of the mitigation system to the owner/occupants, the purpose of the pressure gauge and the contact information if they suspect a problem with the system. The investigator shall provide this same information in writing to the home owner/occupants in the form of a fact sheet.

# Post-Mitigation Process & Reporting Requirements

After the mitigation system is operational, post-mitigation confirmation shall be conducted. One indoor air sample (from the basement or lowest floor) and one ambient (outdoor) air sample shall be collected, consistent with the NJDEP <u>Vapor Intrusion Guidance</u> document. The sampling event shall be conducted no less than 30 days after the mitigation system is started to verify the effectiveness of the system. Indoor air sampling events that do not occur during the winter or early spring (November 1<sup>st</sup> through March 31<sup>st</sup>) shall necessitate a second round of indoor air sampling during this timeframe. The samples shall be sent to an NJDEP-certified laboratory and analyzed for Low Level TO-15 Method (full list of volatile organic compounds). An "Indoor Air Building Survey and Sampling Form" shall be filled out for each sampling event. **Every effort shall be made to remove likely background sources of indoor air contamination from the building several days prior to the indoor air sampling.** 

Site-specific Indoor Air Comparison Levels were developed using the new Low-Level Method TO-15 analytical method at the DuPont Pompton Lakes Works site. Comparison levels for the 10 contaminants of concern are available below.

Chemical	Site-Specific Indoor Air Comparison Levels (µg/m³)
Carbon tetrachloride	1
1,1-Dichloroethane	510
1,2-Dichloroethane	0.8
1,1-Dichloroethene	220
1,2-Dichloroethene (cis)	36
1,2-Dichloroethene (trans)	73
Tetrachloroethene (PCE)	1
1,1,1-Trichloroethane	1,000
Trichloroethene (TCE)	1
Vinyl chloride	0.5

If the post-mitigation indoor air results (collected during the winter/early spring timeframe) are above the Site-specific Indoor Air Comparison Levels for the contaminants of concern, the installer shall inspect the mitigation system performance and identify indoor air background sources. Resample the indoor air and ambient air samples after system modifications and/or removal of background sources. The pressure readings at the design communication locations shall be measured and recorded to reconfirm that a pressure differential of at least 0.004 inches of water exists across the slab under maximum building depressurization. Other lines of evidence may be required by the NJDEP/USEPA based on building-specific concerns. Using the multiple lines of evidence approach, alternative data (such as the negative pressure field data, Indoor Air Building Survey and Sampling Form) can be utilized to establish that the system is operating appropriately in those situations where it is reasonable to conclude that background sources are impacting the post-mitigation indoor air results.

The one situation where the post-mitigation indoor air results are particularly important is with subslab ventilation (SSV) systems. The baseline minimum velocity for the SSV system suction points can only be established upon the receipt of validated sample results that show the contaminants of concern are below the site-specific indoor air comparison levels. The results from the installation of the mitigation system shall be submitted to the NJDEP/USEPA within 90 days of the initial system commissioning. A separate Remedial Measures Report (RMR) shall be prepared for each property with a copy presented to the property owner upon approval by the NJDEP/USEPA. The RMR shall contain:

- As-built drawings showing all system components and electrical connections, as well as IA and SSSG sampling locations, extraction and observation holes, and mechanical combustion devices (hot water heater, clothes dryer, etc.) tested for backdrafting
- Design drawing prepared prior to installation (and signed by the homeowner)
- Pertinent dates of sampling events, communication testing, and commissioning
- All communication testing results (in table format)
- Static pressure readings and flow measurements upon commissioning
- Post-mitigation IA sampling results with interpretation
- Summary table of the post-mitigation sample results (indoor and ambient air)
- Post-Mitigation Chain-of-Custody Records
- Indoor Air Building Survey and Sampling forms for each sampling event
- Installation Photographs
- Any building permits required by the local municipality
- Explanation and technical justification for any modifications to the original design drawing submitted to the municipality as part of the permit application

All air analytical results shall be submitted with full laboratory data deliverables pursuant to N.J.A.C. 7:26E-2.1(a)17 & 1.18. The following three electronic items shall be included on compact disk (CD) or 3.5 inch diskette with the QA/QC laboratory package:

- Electronic Data Deliverables Format
- Method TO-15 Unit Conversion Table
- Hazsites Electronic Data Submission of Results

# **Operation & Maintenance Requirements**

The investigator shall implement an Operation and Maintenance Program that consists of quarterly inspections of the mitigation system to verify the system's proper operation. The inspections can be reduced to annual after the first year provided the initial inspections reveal no operational deficiencies.

The static pressure of the system suction points and the fan inlet shall be measured and recorded. If the static pressure deviates by more than  $\pm 0.25$  inches of water from its commissioned (baseline) value, then additional investigations (such as pressure field extension testing) shall be conducted to determine

the effects, if any, of the change in system performance. Additionally, a minimum of 0.125 inches of water (or greater) must be achieved at system suction points for Submembrane Depressurization (SMD) systems. If the system needs to be modified, depressurization will be reverified (communication test) and documented accordingly.

The velocity measured at the inaccessible crawlspace system suction point shall be determined and adjusted to maintain +/-10 % of the calculated design target velocity.

For sub-slab ventilation systems, verify air movement at the designated communication test point and any other points noted during the installation. Measure the velocity at the system suction point for the ventilation system and verify that it has not dropped below the established minimum (baseline) velocity.

(smoke check).



Inspections shall also consist of a thorough examination of the system components for proper installation and operation. All walls and the slab on the lowest floor shall be inspected for cracks or other entryways (and properly sealed if necessary). SMD systems shall also be inspected for leaks

A Monitoring and Maintenance Report (MMR) shall be prepared and submitted on an annual basis to the DEP/EPA and the homeowner. The MMR document the results of the O&M inspections. All information/data generated from the inspections shall be reported in the MMR.

#### <u>Attachment A</u> DuPont Pompton Lakes Vapor Intrusion Mitigation System Inspection Checklist

Address inspected:	Pompton Lakes, NJ
Person(s) interviewed:	
Date of inspection:	
Inspector(s):	
Make and Model of Fan	_
Date System Installed	

System Pressures	SSP-1	SSP-2	SSP-3	FAN
Observed Vacuum Pressure				
Commissioned Vacuum Pressure				
Difference				

#### 1.0 Systems Installation and Interior Piping Requirements No Unk / NA

1.1 Are all manifold and suction point piping solid, rigid pipe not less than 3 in. inside diameter?

Yes

1.2 Are all pipe interior joints and connections in mitigation systems sealed permanently? (Exceptions include installation of fans and sump covers)

1.3 Does the system piping avoid attachment to or support by existing pipes, ducts, conduits or any kind of equipment?

1.4 Does the system piping avoid blocking window and doors or access to installed equipment?

1.5 Are supports for system piping installed at least every six (6) feet on horizontal runs?

1.6 Are vertical runs secured above or below the points of penetration through floors, ceilings and roofs, or at least every (8) feet on runs that do not penetrate floors, ceilings or roofs?

# 1.7 Are suction point pipes supported and secured in a permanent manner that prevents their

downward movement to the bottom of suction pits or sump pits, or into the soil beneath

a soil-gas-retarder membrane?

1.8 Are horizontal runs in system piping sloped to ensure that water from rain or condensation drains downward into the ground beneath the slab or soil-gas-retarder membrane?

1.9 Does the system piping pass the smoke stick check (no leaks)?

#### 2.0 General Sealing Requirements

2.1 Are openings around the suction point piping penetrations of the slab properly sealed using methods and materials that are permanent \ durable and pass the smoke stick check?

2.2 Are accessible openings around utility penetrations of the foundation walls and slab, test holes, wells and other openings in slabs properly sealed using methods and materials that are permanent / durable and pass the smoke stick check?

2.3 Are openings / cracks sealed where the slab meets the foundation wall (if appropriate)?

2.4 At the point where vent pipe exits the building, is urethane caulk or equivalent material used, and when the joint is greater than ½ inch in width, is a foam backer rod or other comparable filler material inserted into the joint before the application of the sealant (principally from the outside)?

2.5 When installing baseboard-type suction systems, are all baseboard sealed to walls and floors with adhesives also designed and recommended for such installations?

2.6 Are all utility and other penetrations through a soil-gas-retarder membrane sealed?

2.7 Did all cracks or openings in the slab or wall pass the smoke test? If not, identify the location of failed cracks or openings in the Notes & Comments Section below.

# 3.0 Electrical Requirements

3.1 Is the plugged cord used to supply power to the fan no more than 6 feet in length?

3.2 Does the plugged cord avoid penetrating a wall or being sealed within a wall?

3.3 Is the power supply to the fan hard-wired with an electrical disconnect within line of sight and 4 feet of the fan?

3.4 Does the power supply have a seal to determine if access has occurred?

3.5 Is the electrical service panel labeled to indicate the circuit breaker powering the SSDS fan?

<u>4.0</u>		Sub-
Memb	prane Depressurization Requirements	
4.1 sub-me	embrane depressurization system part of the mitigation system?	Is a
4.2	If yes, did the sub-membrane depressurization system pass the smoke test?	
<u>5.0</u>	Sump Pit Requirements	
5.1	Is there a sump pit in basement?	
If yes:		
	5.2 Is the sump pit installed with an impermeable cover and sealed with O-ring or silicone caulking?	
	5.3 Is the sump pit cover designed to facilitate removal for sump pit maintenance?	
	5.4 Is there a mitigation system designed to draw soil-gas from the sump pit?	
<u>6.0</u>	Monitors and Labeling Requirements	
6.1	Does each suction point have a mechanism to measure vacuum?	
6.2 clearly	Is the mechanical mitigation system's monitor, such as manometer type pressure gauges, marked to indicate the initial pressure readings?	

6.3 Is the current vacuum reading within 0.25" water of the initial reading for low vacuum fans and within 5% of the commissioned vacuum for high vacuum fans?

6.4 Is a system description label placed on the mitigation system or other prominent location?\_\_\_\_

6.5 Is the label legible from a distance of at least three feet and does it display the following information: Purpose of the system ("Vapor Intrusion Mitigation"), name, address and phone number of the contact person.

6.6 Does the mitigation system prevent backdrafting of combustion products into the structure?

6.7 Were the vacuum readings in the system stable during the backdraft test?

6.8 Does the mitigation system include an audible alarm to inform occupants of a system malfunction?

6.9 Is the audible alarm operational?

## 7.0 System Vent Discharge Point Requirements

7.1 Is the vent pipe vertical and upward, outside the structure, at least 10 feet above ground level, and above the edge of the roof ? (**Req. A**)

7.2 Is the discharge of the vent pipe ten feet or more away from any window, door, or other opening into conditioned or otherwise occupiable spaces of the structure, if the vapor discharge point is not at least 2 feet above the top of such openings? (**Req. B**)

7.3 Is the discharge of the vent pipe ten feet or more away from any opening into the conditioned or other occupiable spaces of an adjacent building? Chimney flues shall be considered openings. (**Req. C**)

7.4 For vent stack pipes that penetrate the roof, is the point of discharge at least 12 in. above the surface of the roof? (**Req. D**)

7.5 For vent stack pipes attached to or penetrating the sides of the buildings, is the point of discharge vertical and a minimum of 12 inches above the surface of the roof.

7.6 Does the horizontal run of vent stack pipe penetrate the gable end walls? (**Req. E**)

7.7 If yes, does the piping outside the structure routed to a vertical position so that the discharge

point meets the requirements of (A), (B), (C), and (D)?

7.8 Do points of discharge that are not in a direct line of sight from openings into conditioned or otherwise occupiable space because of intervening objects, such as dormers, chimneys, windows around the corner, etc. meet the separation requirements of (A), (B), (C), (D) and (E)?

7.9 Is the outside vent piping fastened to the structure of the building with hangers, strapping or other supports that will secure it adequately (every 8 feet)?

7.10 Is vent stack piping's ID at least as large as the largest used in the manifold piping? Manifold piping to which two or more suction points are connected shall be at least 4 inch ID. (3x4 inch aluminum downspout is an acceptable deviation)

7.11 If system piping is installed on the exterior of a building, is piping sealed from the outside at point of entry to the building?

#### 8.0 Fan Installation Requirements

8.1 Is the fan installed in a configuration that avoids condensation buildup in the fan housing?

8.2 Is the fan mounted on the exterior of buildings rated for outdoor use or installed in a weather proof protective housing?

8.3 Is the fan mounted and secured in a manner that minimizes transfer of vibration to the structural framing of the building?

8.4 Does the system operate without noise or vibration above normal conditions?

#### 9.0 Design Drawing and As-Built Drawing Requirements

9.1 Was the system installed as per the design drawings submitted to the municipality?

#### 10.0 Notes & Comments

**<u>11.0 Required Corrective Actions</u>** 

# Item # 4: Cost Guide

As there are multiple phases to the installation process, NJDEP and EPA have developed an agreed upon payment program for this work to be conducted. The cost ranges include all labor materials, tools, supplies, sampling, analytical and other costs related to the scope of work. DuPont will place appropriate funds into an escrow account to be released by an independent party upon NJDEP or EPA approval of each phase, as identified in the Scope of Work. DuPont will pay for each distinct phase of the installation process. Any costs in excess of the acceptable costs noted below require NJDEP or EPA pre-approval.

Those Phases and Range of Acceptable Costs are:

#### Phase 1: Design

Upon completion of the design and submittal to the Borough of Pompton Lakes for permit applications the contractor shall submit the design document to NJDEP and EPA. The design document shall be accompanied by a certification by the contractor that confirms this design was prepared in accordance with the Scope of Work and will identify any divergences from the Scope of Work. Design approval by NJDEP/EPA will result in the release of appropriate funds.

# Range of Acceptable Costs: \$1,000 - \$1,500

#### Phase 2: Installation

Upon completion of system installation, the contractor or homeowner shall contact EPA, per the Scope of Work, to arrange for a system inspection. Inspection approval will result in the release of appropriate funds. **Range of Acceptable Costs: \$3,000 - \$4,000** 

# Phase 3: Post-Mitigation Process & Reporting

Upon completion of the Remedial Measures Report and all associated postmitigation indoor air sampling, the contractor shall submit the required documentation to NJDEP for approval. NJDEP approval will result in the release of appropriate funds.

#### Range of Acceptable Costs: \$1,000 - \$1,450

#### **Phase 4: Operations and Maintenance**

In order for NJDEP and EPA to ensure the installed mitigation system remains protective, an annual inspection and reporting requirement exists. Upon receipt of each annual inspection NJDEP will approve the release of appropriate funds to compensate the contractor responsible for conducting the inspection.

#### **Range of Acceptable Costs:**

First Year: \$1,800 Annually thereafter: \$450