Chemical Conservation Corporation

10100 ROCKET BOULEVARD • ORLANDO, FLORIDA 32824

(407) 859-4441 • FAX (407) 855-2812

September 29, 1997

HAND DELIVERED

Mr. Robert Snyder, P.E.
Section Manager
Hazardous Waste Program
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803-3767

Re: Chemical Conservation Corporation FLD 980 559 728
Incident of September 22, 1997

Dear Mr. Snyder:

On September 22, 1997 at approximately 3:15 p.m., Chemical Conservation Corporation (CCC) experienced a release of vapors from a tanker that had been loaded with acid liquids The composition of the waste in the tanker is shown in the attached Tanker/Van Load Report. As further discussed below, the problem apparently was caused by the addition of six drums of chromic acid solution, listed in Page 6 of the report.

Emergency procedures contained in the facility's Contingency Plan and the applicable regulations at 40 CFR 264.56 were implemented during this incident. The source of the gas release and the materials involved in the incident were identified immediately There was neither a liquid nor solid release during the incident, and the gas coming out of the tanker was a byproduct whose chemical identity could not be readily determined. A sample of the liquid source-material was collected from the tanker and analyzed for the purpose of attempting to identify the exact chemical nature of the gas released. The analysis report is attached to the letter. The liquid proved to be a combination of the acids listed on the Load Report, predominantly hydrochloric acid. This analytical information does not conclusively establish the chemical nature of the vapor release. However, given the proportionately large amount of hydrochloric acid, and my on-site observations regarding the odor of the release, we believe that a primary component of the vapor released was chlorine gas.

CCC quickly determined at the time that no extra personnel were needed to complete the initial evaluation of the situation. CCC also immediately assessed any possible hazards that the vapor release might present to human health or the environment. A low vapor generation rate and a strong wind dissipated the gas quickly after it exited the tanker manhole and reduced the impact of the release to not more than 20 feet from the source. After consulting with us, Cook Composites and Polymers, CCC's next door neighbor decided to terminate the second shift at its facility. In fact, the incident did not warrant evacuation either on-site or off-site, and cessation of work in Cook's facility was done as a precautionary measure.

Key support and key management personnel at the facility were, of course, immediately notified and involved in the response to this incident, particularly as it took place in primary operating hours. Due to the minimal extent of the release and the lack of exposure to on-site and off-site personnel, CCC did not seek assistance from the Orange County Sheriff's Department, Fire Department or Orlando Regional Medical Center.

CCC did not report this release to the NRC. The reportable quantity for chlorine for reporting to the NRC is ten pounds and our September 22 release is estimated at less than one pound. Since that incident, however, we have received and reviewed your correspondence pertaining to the inspection of May 14, 1997, specially with reference to implementation of *all* requirements of the Contingency Plan. A corresponding review of item 6 of the Contingency Plan shows that notification of either the governmental on-scene coordinator or the NRC is required without reference to any threshold release quantity.

Based on an assessment of the actual conditions at the time of the vapor release, CCC determined that neither human health nor the environment was threatened outside the facility. Therefore, CCC did not notify the Orange County Civil Defense Fund or the Florida Bureau of Disaster Prevention (see item 7 of the Contingency Plan). No injury to personnel or damage to property occurred as a result of the incident.

During the emergency, CCC took all reasonable measures necessary to ensure that fires, explosions, and releases did not occur, recur, or spread to the other hazardous waste at the facility. All operations at the facility were halted immediately. No containers, other than the tanker itself, were involved in the incident. As the release involved only vapors, the containment system for the tanker was not utilized. CCC did not have the occasion to use any of its emergency equipment during this release, except that two large fans were placed next to the manhole to help dissipate the remaining gas coming out of the tanker.

There was no recovered waste, contaminated soil, or any other material resulting from the vapor release, and no cleanup procedures were required. As previously noted, no emergency equipment was utilized, and none, therefore, required cleaning following the incident. Likewise, no mechanical and electrical repairs were required.

This report is submitted in satisfaction of items 12 and 13 of the facility's Contingency Plan. In view of the particular facts associated with this incident, CCC does not deem appropriate to disseminate any information to the public via local news media.

We have attempted to carefully evaluate the cause of the September 22 incident and formulate a course of action that will prevent its recurrence. Chromic acid solutions do not present a compatibility concern when they are weak. They are not pumped into a tanker unless a sample from every container holding the solution has passed a compatibility test, which they did before the solution was loaded into the tanker. However, another procedure that consists of pumping the solution into a tote tank and lets it rest there for a while before it is pumped into a tanker was not followed. This procedure simulates a compatibility test in a larger scale, involving quantities smaller than a tanker volume to avoid a large scale incident. Also, a separate compatibility test is conducted on samples collected from every tote tank before their contents are pumped into the tanker. Chromic acid solution was supposed to be pumped into six tote tanks holding different waste streams, one drum per tote tank. Instead, the chromic acid solution was pumped into the tanker directly from the drums.

Obviously, the compatibility test is not accomplishing the results for which it was designed and changes are needed to make it more reliable. CCC reviewed the compatibility test plan and found some areas where it needs improvements. One of them is documentation of compatibility test results for samples from every container that is pumped into the tote tanks, as well as from the tote tanks before their contents are pumped into the tanker. Documentation of test results has been proposed in the permit application CCC submitted to DEP for review, but it has not been implemented in the current procedures. A copy of the Compatibility Test Results Log Sheet that has been designed to document the results of the compatibility test is attached.

Another improvement to be introduced in the testing procedures is the use of a more powerful mixer to achieve a better blending action of the sample mixture. A modification of the test plan will also require that waste to be pumped into tote tanks proceed from separate waste streams. We suspect that chromic acid solution samples were commingled in the test without the presence of other waste streams with which it reacted in the tanker.

A separate measure that CCC is implementing is the installation of a scrubber to control emissions coming out of the tanker during and after the loading operation. Waste will be pumped into the tanker through one nozzle in the manhole and the vapor control equipment will be connected to another nozzle in the tanker manhole. The same equipment will be used to control emissions from a tote tank if it becomes necessary.

The emission control equipment will prevent harmful vapors from escaping to atmosphere. Figure 1 shows the piping and hose arrangement between the tanker, tanks and emission control equipment. A separate sheet contains an outline of the steps to be followed in the incompatibility test procedure. An analysis report for the mixture that was loaded into the tank is provided with this letter.

If you have any questions, please call me at (407) 859-4441.

Sincerely,

CHEMICAL CONSERVATION CORPORATION

Armando I. Gonzalez
Compliance Officer

cc: William F. Labadie
Jean Tolman

970922

TANKER/VAN LOAD REPORT
SHIPPER NO. 00000
TANKER 405

Comv
97411

LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION / WASTE CODES	UNIT	QUANTITY	GALLONS
E572036L0001	72497	GE00703J	CHROMERGE D002 D007	L	2.000	0.528
E572036L0002	72497	GE00703J	METAL SALTS (260 D002 D007 D005 D008 D009 D011	L	2.000	0.528
E602003L0001	97075	HAL0585A	MURIATIC ACID D002	QT	1.000	0.250
E602003L0002	97075	HAL0585A	PHOSPHORIC ACID 10% D002	QT	11.000	2.750
E602003L0005	97075	HAL0585A	HYDROCHLORIC ACID POTASSIUM CHLORIDE D002	QT	1.000	0.250
E602003L0006	97075	HAL0585A	PHOSPHORIC ACID/LIME SCALE REMOVER D002	GA	1.000	1.000
E602003L0007	97075	HAL0585A	PHOSPHORIC ACID 10% D002	PT	1.000	0.125
E602003L0008	97075	HAL0585A	HYDROGEN CHLORIDE D002	QT	14.000	3.500
E602003L0009	97075	HAL0585A	EROTICATES CONTAINING HYDROFLUORIC ACID D002	OZL	14.000	0.109
E602003L0010	97075	HAL0585A	HYDROCHLORIC ACID D002	PT	1.000	0.125
E602003L0011	97075	HAL0585A	HYDROCHLORIC ACID D002	PT	1.000	0.125
E602021L0001	97075	HAL0585A	HYDROGEN CHLORIDE 23% D002	QT	38.000	9.500
E602021L0002	97075	HAL0585A	RUST REMOVER D002	GA	2.000	2.000
E602021L0004	97075	HAL0585A	HYDROFLORIC ACID D002	PT	4.000	0.500
E604027L0001	97014	MID0662K	SULFURIC ACID D002	GA	3.000	3.000
E604027L0002	97014	MID0662K	HYDROCHLORIC ACID D002	GA	1.000	1.000
E604027L0005	97014	MID0662K	RUST REMOVER D002	G	10.000	0.003
E604027L0006	97014	MID0662K	STANNOUS CHLORIDE D002	LB	0.250	0.030
E604027L0009	97014	MID0662K	FERRIC CHLORIDE D002	ML	15.000	0.005
E604029L0013	97013	MID0662L	IODINE SOLUTION D002	PT	2.000	0.250
E612022	37239 416	DRMF0919	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	2.000	2.000
E627031	97134 422	DRMF0921	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D010	PT	1.000	0.125
E627032	97134 422	DRMF0921	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	1.000	1.000
E632080	27757 421	DRMF0915	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	2.000	2.000
E632081	27757 421	DRMF0915	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	1.000	1.000
E640009L0001	62167	ISL0925B	OXYGEN INDICATOR D002 D007	OZL	48.000	0.374

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LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION WASTE CODES	UNIT	QUANTITY	GALLONS
E641002	82197	MARF8908	RQ, Waste Sulfuric acid D002	GA	8.000	8.000
E644004L0001	71052	UNI0839C	P-TOLUENESULFONIC ACID D002	G	100.000	0.030
E644004L0003	71052	UNI0839C	DIMETHYL SULFATE D002	G	200.000	0.060
E644004L0014	71052	UNI0839C	HYDROCHLORIC ACID, COBALT CHLORIDE D002	L	1.000	0.264
E645047	27779 435	DRMF0915	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	2.000	2.000
E646012	12661	GREF0435	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	DF	1.000	50.000
E646039L0001	00457	VIS1052H	HYDROFLUORIC ACID D002	GA	1.000	1.000
E646039L0002	00457	VIS1052H	FLUORIDE PASTE D002	LB	1.000	0.120
E649013	97826	SARF1081	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DM	1.000	50.000
E649014	97826	SARF1081	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DM	1.000	50.000
E649020L0001	89726	SAR1098C	FLUOBORIC ACID D002	GA	5.000	5.000
E649020L0003	89726	SAR1098C	PHOSPHORIC ACID D002	L	2.000	0.528
E649020L0004	89726	SAR1098C	ACID D002	GA	1.000	1.000
E649021L0001	89726	SAR1098E	CORROSIVE LIQUID (PH <2) D002	GA	15.000	15.000
E656030	00009	XLCF1127	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E657030L0001	78274	THO1101D	RUST REMOVER D002	PT	2.000	0.250
E657030L0002	78274	THO1101D	OXFORD FORMULA 100L D002	GA	1.000	1.000
E657030L0003	78274	THO1101D	TOTAL ALKALINITY D002	OZL	16.000	0.125
E657030L0004	78274	THO1101D	SODIUM BIDULFATE D002	OZL	64.000	0.499
E657030L0005	78274	THO1101D	AMMONIUM MELYBDATE D002	OZL	64.000	0.499
E657030L0006	78274	THO1101D	TOTAL ALKALINITY D002	OZL	8.000	0.062
E657030L0007	78274	THO1101D	SODIUM THIOSULFATE D002	OZL	8.000	0.062
E657030L0008	78274	THO1101D	THIODULFATE D002	OZL	8.000	0.062
E661010	82697	NUTF1390	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DF	1.000	50.000
E661017	82697	NUTF1390	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DF	1.000	50.000
E663001	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000

LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION WASTE CODES	UNIT	QUANTITY	GALLONS
E663002	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663003	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663004	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663006	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663007	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663026	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663033	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663034	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663035	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663036	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663037	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663043	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663044	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663045	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663046	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663047	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663049	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663050	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663051	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663053	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663054	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	GA	25.000	25.000
E663055	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663056	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663057	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663058	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663059	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000

LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION WASTE CODES	UNIT	QUANTITY	GALLONS
E663060	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663062	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663063	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663065	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663066	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663067	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663068	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663069	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663072	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663073	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663075	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663076	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E663078	97829	SOUF8946	RQ, Waste Ferric chloride, solution D002 D004 D007	DM	1.000	50.000
E664008	81997	NUCF1045	RQ, Waste Sulfuric acid D002	GA	3.000	3.000
E665001	97082	PIER0817	RQ, Waste Corrosive liquids, n.o.s. D002	DM	1.000	50.000
E668017	97396 120	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D007 D008	DM	1.000	50.000
E668018	97396 120	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D007 D008	DM	1.000	50.000
E673005	90397	JETF6168	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E674090	97074 441	DRMF0922	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	GA	2.000	2.000
E676001	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676002	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676013	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676016	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676017	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676018	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676030	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000

LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION WASTE CODES	UNIT	QUANTITY	GALLONS
E676031	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E676045	97404 119	DRMF0902	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D006 D008 D035 D040	DM	1.000	50.000
E680001	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680002	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680003	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680004	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680005	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680006	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680007	00055	HELF1166	RQ, Waste Corrosive liquids, n.o.s. D002 D007	DM	1.000	50.000
E680008	00055	HELF1167	RQ, Waste Corrosive liquids, n.o.s. D002	DM	1.000	50.000
E680011L0001	62757	VIR11258	RQ, Waste Hydrofluoric acid, solution D002	GA	1.000	1.000
E681021	72471 012	DRMF4783	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	GA	1.000	1.000
E681024	72463 012	DRMF4789	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	GA	2.000	2.000
E685058	27793 442	DRMF0915	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002 D007	DM	1.000	50.000
E686006	90997	GNBF1027	RQ, Waste battery fluid, acid D002 D008	DF	1.000	50.000
E686007	90997	GNBF1027	RQ, Waste battery fluid, acid D002 D008	DF	1.000	50.000
E686008	90997	GNBF1027	RQ, Waste battery fluid, acid D002 D008	DF	1.000	50.000
E686009	90997	GNBF1027	RQ, Waste battery fluid, acid D002 D008	DF	1.000	50.000
E691006	91197	FLAF4486	RQ, Waste Sulfuric acid D002	DM	1.000	50.000
E692001	97434	TRIF9033	RQ, Waste Corrosive liquids, n.o.s. D002	DF	1.000	50.000
E694006	88032	K&LF0567	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DF	1.000	50.000
E694007	88032	K&LF0567	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DF	1.000	50.000
E694012	88032	K&LF0567	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DF	1.000	50.000
E696008	62017	OLDF0915	RQ, Waste Hydrochloric acid, solution D002	DM85	1.000	30.000
E696011	62017	OLDF0911	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DM	1.000	20.000
E696012	62017	OLDF0911	RQ, Waste Corrosive liquid, Acidic, Inorganic, D002	DM	1.000	50.000

LOAD/UNIT #	MANIFEST	ANALYSIS	DESCRIPTION WASTE CODES	UNIT	QUANTITY	GALLONS
E710002	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E710003	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E710004	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E710005	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E710007	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000
E710008	91997	PREF1286	RQ, Waste Chromic acid solution D002 D007	DM	1.000	50.000

TOTAL GALLONS THIS REPORT 4126.638

D002 D004 D005 D006 D007 D008 D009 D010 D011 D035 D040

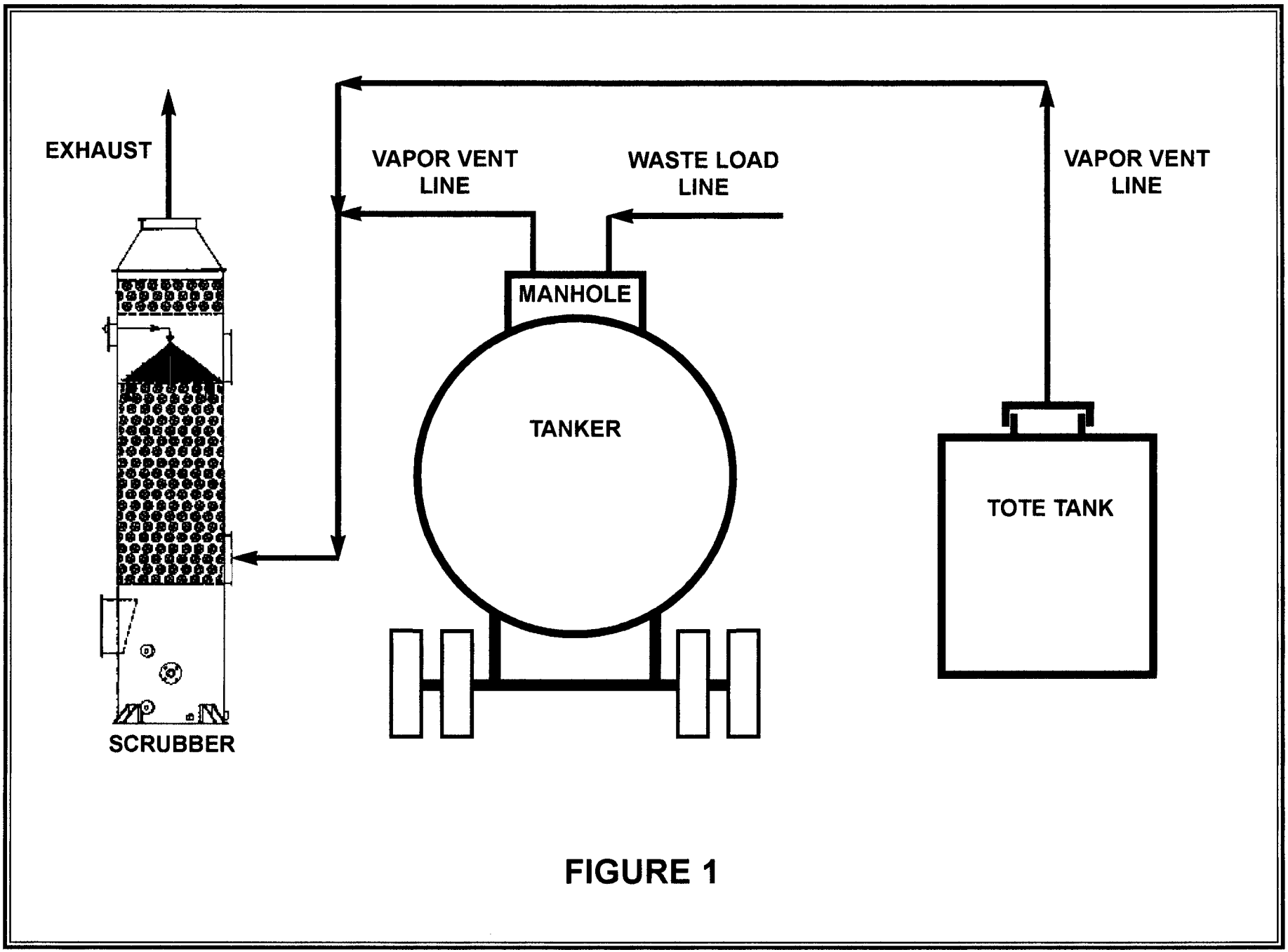
EXHAUST
VAPOR VENT LINE
WASTE LOAD LINE
VAPOR VENT LINE
MANHOLE
TANKER
TOTE TANK
SCRUBBER

FIGURE 1

COMPATIBILITY TEST PLAN

PROCEDURE OUTLINE

1. Have two test equipment sets, each composed of the following items:
   - A beaker to contain and test waste samples to be collected
   - A mixer to stir the sample mixture in the beaker
   - A device to measure the temperature of the sample mixture
2. Segregate a group of containers that meet the following specifications:
   - The total waste volume in the containers group is large enough to fill a tote tank
   - Each waste container in the group must belong to a different waste stream
3. The sample volume should be proportional to the size of the container
4. Collect a representative waste sample consisting of a column from top to bottom
5. Place the waste sample in the beaker right after being taken from the container
6. Record the temperature of the first sample placed in the beaker
7. Place in the beaker only waste to be transferred into one tote tank
8. Record the Drum I.D. and size of every container from which a sample was taken
9. Use a separate log to record temperature, test and container data for each group
10. Repeat the steps' 2-9 for a second group of containers (2nd sample set)
11. Record temperature, bubbling action and vapor coming out of 1st sample set
12. Save sample sets for later use
13. Repeat 1-11 for container groups needed to fill tote tanks enough to complete a tanker
14. Bring to the plant manager (PM) attention a test result that shows a temperature rise, bubbling action or generation of vapor
15. Have every test result for waste in containers approved by PM
16. Fill tote tanks with waste from container groups after results are approved by PM
17. Identify every tote tank filled to complete a tanker and collect samples from them following steps' 4-6, 8, 11, 14 and 15, replacing the word "container" with "tote tanks"
18. Alternatively, samples used in step 16 may be taken from sample sets collected from container groups instead of collecting individual samples from every tote tank
19. Load tanker with waste in tote tanks after results are approved by PM

COMPATIBILITY TEST RESULT LOG SHEET

Load No:____________ Date:________________ Operators Name:____________________

SET Tote-Tank I.D. No.:_______ Initial Temp.:______Time:____ Final Temp.:______Time:____

Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size
____________/____ *	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____

*Measure initial temperature Bubbling action? Yes ☐ No ☐ Gas generation? Yes ☐ No ☐

SET Tote-Tank I.D. No.:_______ Initial Temp.:______Time:____ Final Temp.:______Time:____

Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size
____________/____ *	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____

*Measure initial temperature Bubbling action? Yes ☐ No ☐ Gas generation? Yes ☐ No ☐

SET Tote-Tank I.D. No.:_______ Initial Temp.:______Time:____ Final Temp.:______Time:____

Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size
____________/____ *	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____

*Measure initial temperature Bubbling action? Yes ☐ No ☐ Gas generation? Yes ☐ No ☐

SET Tote-Tank I.D. No.:_______ Initial Temp.:______Time:____ Final Temp.:______Time:____

Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size
____________/____ *	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____

*Measure initial temperature Bubbling action? Yes ☐ No ☐ Gas generation? Yes ☐ No ☐

SET Tote-Tank I.D. No.:_______ Initial Temp.:______Time:____ Final Temp.:______Time:____

Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size	Drum I.D. No. / Size
____________/____ *	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____
____________/____	____________/____	____________/____	____________/____

*Measure initial temperature Bubbling action? Yes ☐ No ☐ Gas generation? Yes ☐ No ☐

Plant Manager Approval:__________________________ Date:______________

Chemical Conservation of Georgia, Inc.

Laboratory Services

1612 James P. Rodgers Circle, Valdosta, Georgia 31601

(912) 244-0474 • FAX: (912) 333-0328

Client: Chemical Conservation Corporation
10100 Rocket Blvd.
Orlando, FL 32824
Pat Sullivan

Customer's Sample Log Number:	Tanker #405
CCGI's Sample Log Number:	97171
Date Sample Received:	09/25/97
Date Analysis Completed:	09/26/97
Generator's Name:	Chem-Con Orlando
Sample Identification:	Water

Lab Manager: _____ Glynn McKinnon

Chemical Conservation of Georgia, Inc.

Laboratory Services

Miscellaneous Analysis	Results
PH	0.24
Water	93.97%
Percent Solid	<0.5%

TCLP Metals Analysis		Results	Units	Regulatory Level (mg/L)
Arsenic	(As)	39.6	mg/L	5.0
Barium	(Ba)	N/A	mg/L	
Cadmium	(Cd)	10000	mg/L	1.0
Chromium	(Cr)	60000	mg/L	5.0
Lead	(Pb)	400	mg/L	5.0
Mercury	(Hg)	N/A	mg/L	
Selenium	(Se)	5.4	mg/L	1.0
Silver	(Ag)	100.00	mg/L	5.0