

## Section E, Updated Wastewater Information Table

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
X	BOD (5 day)	15	427	63	41	SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids					SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
X	Total dissolved solids	150	685	390	41	SM 2540 C	
	Conductivity (micromhos/cm)					SM 2510 B	
X	Ammonia-N as N	0	148	45	41	SM 4500-NH <sub>3</sub> C	/0.3 mg/L
	pH					SM 4500-H	0.1 standard units
	Fecal coliform (organisms/100 mL)					SM 9221 E or 9222 D	
	Total coliform (organisms/100 mL)					SM 9221 B or 9222 B	
	Dissolved oxygen					SM 4500-O C/G	
	Nitrate + nitrite-N as N					SM 4500-NO <sub>3</sub> E	100 µg/L
X	Total kjeldahl N as N	0	238	57	41	SM 4500-N <sub>org</sub> C/E/FG	300 µg/l
	Ortho-phosphate-P as P					SM 4500-P E/F	10 µg/l
X	Total-phosphorous-P as P	0	7.2	1	41	SM 4500-P E/P/F	10 µg/l
	Total Oil & grease					EPA 1664A	1.4/5 mg/l
	NWTPH - Dx					Ecology NWTPH Dx	250/250 µg/l
	NWTPH - Gx					Ecology NWTPH Gx	250/250 µg/l
X	Calcium	6.6	112	51	41	EPA 200.7	10 µg/l
X	Chloride	3.4	21..5	10	41	SM 4500-Cl C	0.15 µg/l
	Fluoride					SM 4500-F E	.025/0.1 mg/l
X	Magnesium	3.6	41.5	19	41	EPA 200.7	10/50 µg/l
X	Potassium	5.7	21	12	41	EPA 200.7	700/ µg/l
X	Sodium	23.3	116	43	41	EPA 200.7	29/ µg/l
X	Sulfate	6.3	40	15	41	SM 4500-SO <sub>4</sub> C/D	/200 µg/l
X	Arsenic(total)		3.5		1	EPA 200.8	0.1/0.5 µg/l

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
X	Barium (total)		40		1	EPA 200.8	0.5/2 µg/l
X	Cadmium (total)		0.0154		1	EPA 200.8	.05/.25 µg/l
X	Chromium (total)		1		1	EPA 200.8	0.2/1 µg/l
X	Copper (total)		30		1	EPA 200.8	0.4/2 µg/l
X	Lead (total)		0.0178		1	EPA 200.8	0.1/5 µg/l
X	Mercury (total) pg/L		8050		1	EPA 1631E	0.2/0.5 pg/l
X	Molybdenum (total)		17		1	EPA 200.8	0.1/0.5 µg/l
X	Nickel (total)		1		1	EPA 200.8	0.1/0.5 µg/l
X	Selenium (total)		0.0718		1	EPA 200.8	1/1 µg/l
X	Silver (total)		0.0225		1	EPA 200.8	.04/.2 µg/l
X	Zinc (total)		47		1	EPA 200.8	0.5/2.5 µg/l

## SPCC Plan

<b>SGL</b> AUTOMOTIVE CARBON FIBERS  A BMW Group and SGL Group Joint Venture	<b>Spill Control Plan</b>	8781 Randolph Road NE Moses Lake, WA 98837
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# SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN

	Responsible (Owner)	Reviewer / Releaser	Version
Dept. Name	HSE Savko, Nichol	Plant Management Brian Radke	

## ***Management Commitment***

The management of SGL ACF will commit sufficient resources to fully implement this plan.

*Burford*  
Name

7/1/2015  
Date

## ***Certification Statement***

I am familiar with the requirements of 112.7 ;

I or my agent has examined the facility;

The Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of 40 CFR 112;

Procedures for required inspections and testing have been established; and

The Plan is adequate for the facility.

*Nichol Savko*  
Name

7/1/2015  
Date



*exp. 12/21/2016*

## ***Change Record***

Date	Name	Description
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This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

## Annual Review Record

Date	Name	Description
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## ***Cross Reference Table***

<b>40 CFR 112 Reference</b>	<b>Summary</b>	<b>SPCC Plan Reference</b>
7(a)(1), (2) (j)	Discussion of facility's conformance	1.0, 4.0
7(a)(3)	Facility diagram and description	1.0, Fig 1
7(a)(3)(i)	Type of oil and storage capacity	Table 1, 6.0
7(a)(3)(ii)	Discharge prevention measures including routine handling procedures	6.1, 6.2
7(a)(3)(iii), 8(b), (c)(1)-(5), (7), 8(d)	Discharge or drainage controls (e.g. secondary containment)	Table 1, 6.0
7(a)(3)(iv)	Countermeasures for discharge discovery, response, and cleanup	6.3, 6.4
7(a)(3)(v)	Methods of waste disposal	6.3
7(a)(3)(vi)	Contact list and phone numbers	8.0, Table 2
7(a)(4) & (5)	Reporting information & accessibility	8.0, Table 2
7(b)	Prediction of spill direction, flow, and quantities	Table 1
7(c) & 7(d)	Provide appropriate containment/diversionary structures	6.3, Table 1
7(e) 8(c)(6)	Inspections, tests, & records	4.0, 8.2
7(f)(1), 7(f)(3)	Personnel, annual training, discharge prevention procedures	8.4
7(f)(2)	Designate responsible person	Table 2
7(g)	Security	7.0
7(h)	Facility tank car and tank truck loading/unloading rack	6.0
7(i)	Aboveground container repairs	6.0



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## **1.0 Applicability of 40 CFR 112**

SGL Automotive Carbon Fibers (SGL ACF) is a carbon fiber manufacturing facility located in Moses Lake, Washington. SGL ACF has aboveground oil storage capacity greater than 1,320 gallons but less than 1 million gallons. The completely buried storage capacity of the facility is less than 42,000 gallons of oil; SGL ACF has no underground oil storage tanks. The facility is located several miles from the nearest navigable waterway and is not considered reasonably expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines. Therefore, based on 40 CFR 112.1, the facility is not considered subject to the requirements of 40 CFR 112; however, SGL ACF has developed this SPCC Plan which will meet the requirements of 40 CFR 112.7 to go above and beyond federal requirements.

## **2.0 Purpose**

This plan establishes proper spill control for the prevention, containment, and control of spills or unplanned releases of pollutants and the spill notification procedures at the SGL Automotive Carbon Fibers LLC, Moses Lake Facility (SGL ACF).

## **3.0 Scope**

This procedure applies to all SGL ACF employees, contractors, and vendors working at the SGL ACF Moses Lake facility.

## **4.0 References**

SGL ACF State Waste Discharge Permit Number ST-0501273; Special Condition S11 Spill Control Plan.

- Spill Kit Inspection
- Hazardous Materials Storage Area Inspection
- Diesel Tank Inspection

## **5.0 Responsibilities**

The SGL ACF Health, Safety, Environmental (HSE) Department has primary responsibility for response to emergencies including chemical spill. It is the HSE department's responsibility to ensure effective implementation of this procedure. Department Managers and Supervisors must ensure that team members are familiar with these procedures. All team members must follow these procedures in the event of a spill. Management at SGL ACF has the responsibility to ensure sufficient resources are provided to allow full implementation of this plan.

## 6.0 Oil Storage Description

Table 1 describes the oil storage at SGL ACF. Oil storage containers are expected to be compatible with the material being stored and the conditions of storage. Diesel emergency generators are associated with lines 3-6, although line 6 is not operational and the associated emergency generator has been decommissioned. The Line 3 and 4 emergency generators are associated with a double-walled, 1250 gallon diesel fuel tank. The tank is never filled more than 90% full, and there is a high-level alarm. Fuel filling occurs with a fuel truck. The top of the tank is opened and the nozzle is placed inside for filling. The tank access point is inside the emergency generator housing. The tanks are shop-fabricated.

The Line 5 emergency generator is associated with a double-walled, 1700 gallon diesel fuel tank with a leak detection system. The tank is filled via a 2" manual fill with overfill prevention valve (set @ 95%) with 7.5 gallons spill containment, quick coupling, and cap. The tank is shop-fabricated.

Lubricant and hydraulic fluid is stored in 55-gallon drums on secondary containment pallets within each production building mechanical room. The capacity of each secondary containment pallet is sufficient to capture 120% of any single container stored upon it.

There are no loading/unloading racks at SGL ACF. There are no underground oil pipelines. There are no underground oil storage tanks. There are no diked storage areas. The facility is designed to retain stormwater onsite, so in the event of a spill to the facility stormwater drainage system, oil would be retained onsite.

## 7.0 Site Security

SGL ACF is a U.S. Foreign Trade Zone, which requires that access to the site be restricted to only authorized persons. The facility is fenced, and access is controlled by badges. Security guards are onsite 24-hours per day, seven days per week, and patrols are conducted at night.

## 8.0 Spill Prevention Procedure

SGL ACF will ensure that all hazardous substances in the facility are properly stored, dispensed, and/or used in a way that prevents release, as described in section 6.1. Good housekeeping practices will be maintained for all chemical materials at the facility, as described in section 6.2. Figure 1 shows the overall facilities and drainage patterns.

### 8.1. Container Management

- All hazardous substance containers will be in good condition and compatible with the materials stored within.
- All hazardous substances, including chemical wastes, will be properly marked and labeled in accordance with all federal, state and local regulations.

- All hazardous substances that are transferred into smaller containers will be marked with the chemical's name.
- All hazardous substance containers will be accessible and spacing between containers will provide sufficient access to perform periodic inspections and respond to releases.
- All hazardous substances and oils will be stored on pallets, in cabinets, or on secondary containment. Diesel fuel will be stored in double-walled tanks
- All empty hazardous substance containers will be disposed of according to applicable local, state and federal regulations.
- Any spills on the exterior of the container will be cleaned immediately.
- Flammable material waste will be collected in drums that are grounded to prevent static spark.
- The waste drums will not be overfilled. Four inches of headspace must remain to allow for expansion.

## **8.2. Housekeeping**

- All hazardous substances will be stored inside buildings or under cover.
- Hazardous substances not used daily will be stored in cabinets, or in designated areas (see Figure 2).
- All chemicals that are transferred from larger to smaller containers will be transferred by use of a funnel or spigot.
- All hazardous substance containers will be closed while not in use.
- Drip pans or other collection devices will be used to contain drips or leaks from dispensing containers or equipment.
- All small spills or leaks will be cleaned up and properly disposed of in accordance with local, state and federal regulations.
- Equipment and hazardous substance storage areas will be periodically inspected (see inspection checklists referenced in Section 4.0) to ensure leaks or spills are not occurring. A visual inspection of the above ground storage tanks occurs on a quarterly basis. Records of inspections are maintained by the HSE department.
- Signs will be used to identify hazardous substance storage or waste collection areas.
- All work areas and hazardous substance storage areas will be kept clean and in good general condition.

### 8.3. Spill Management

The most likely spills to occur in this facility are small or incidental spills (less than 42 gallons). Small spills will be contained by site personnel if they are able to do so without risking injury. Spill kits are located throughout the facilities, as shown in Figure 2. Spill cleanup materials will be properly characterized before disposal.

When there is a **small** chemical spill, the first responder will:

- Stop the source of the spill if possible.
- Notify the supervisor and the supervisor will notify the HSE Department.
- Contain the spill using the spill kits (e.g. absorbent pads). A leaking drum will be placed in an overpack/salvage drum.
- If at any time the spill will be unattended, mark off the area with a cone or caution tape to prevent other personnel from entering.

Personnel trained in SGL ACF spill cleanup procedures will clean up the spill utilizing proper Personal Protective Equipment (refer to Safety Data Sheets).

All Safety Data Sheets are maintained in our online SDS management system, SiteHawk (accessible through the company main drive: Main\ShareAll\SiteHawk). Access points are on all personal work stations and on training computers, and will be installed on the defect entry computers in the winder area of each building. A backup copy of the SDS is maintained on cd by the HSE department.

When there is a **large** chemical spill:

- The discoverer of the spill will immediately notify a supervisor and the supervisor will notify the HSE department.
- Stop the source of the spill if possible.
- The spill will be contained with spill kit supplies (e.g. absorbent pads, pigs, etc.).
- The spill area will be secured with tape and/or cones (available in the maintenance department) and other site personnel will be alerted.
- If site personnel are unable to contain the spill, a cleanup contractor such as Emerald Services or Clean Harbors will be contracted to manage the spill.
- The HSE Department personnel will determine whether the building should be evacuated and/or outside emergency response personnel should be called.
- The supervisor in charge shall fill out an incident report in the Compliance

Management System.

#### **8.4. Training**

All team members receive initial training on spill prevention and response practices upon starting at SGL ACF. Training will include a review of key components of this plan, and a review of location and use of emergency response equipment. Annual refresher training will be provided. Training records will be maintained on the compliance management software, supervisor offices, or kept in the Human Resource Team Member Training Binder for record keeping.

#### **9.0 Reporting**

All chemical spills, regardless of size, should be immediately reported to the HSE Department, and an incident report should be filled out in the Compliance Management System. The HSE Department will determine what reporting to external parties is necessary. Table 2 provides emergency contact phone numbers.

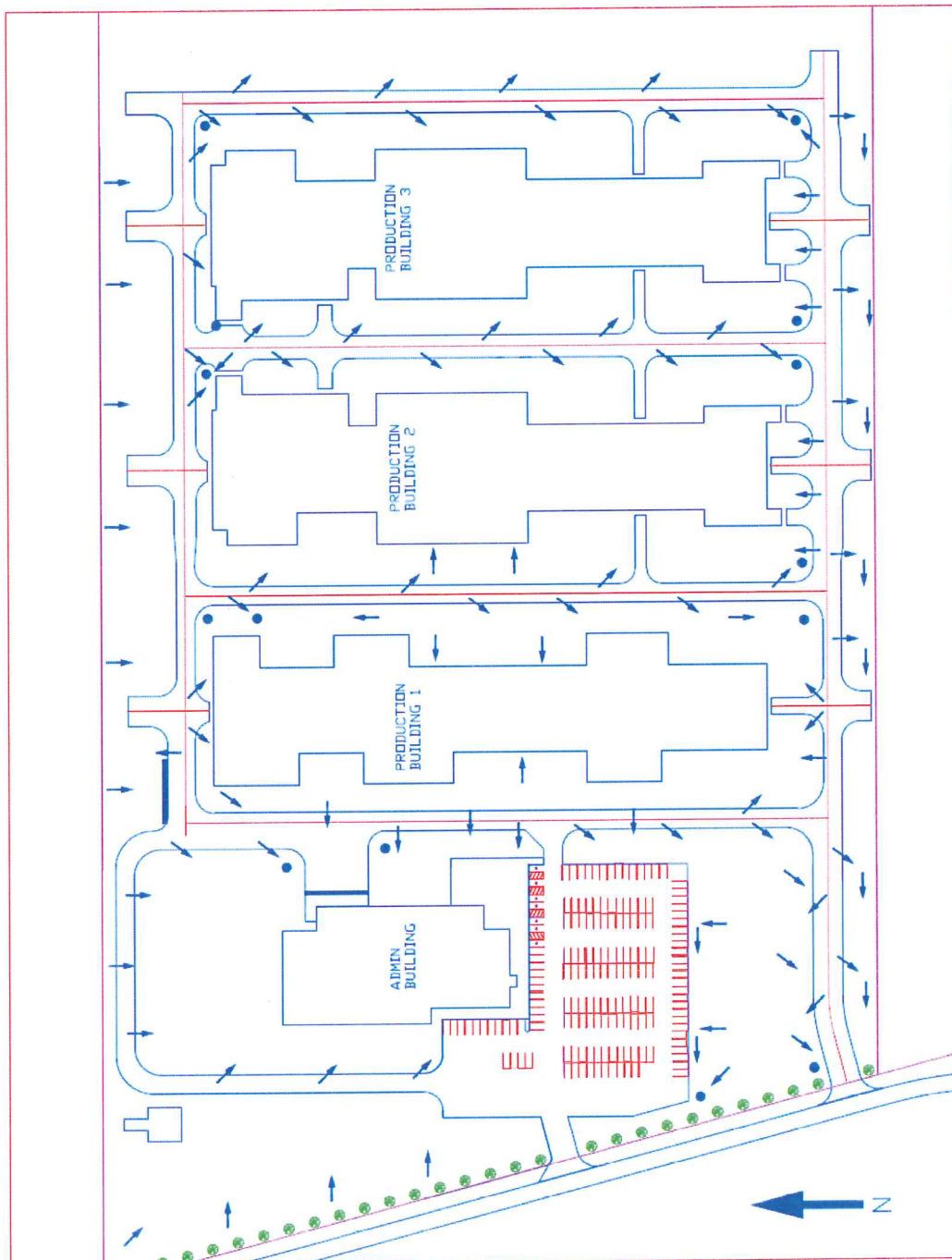


Figure1. SGL ACF facility and drainage patterns

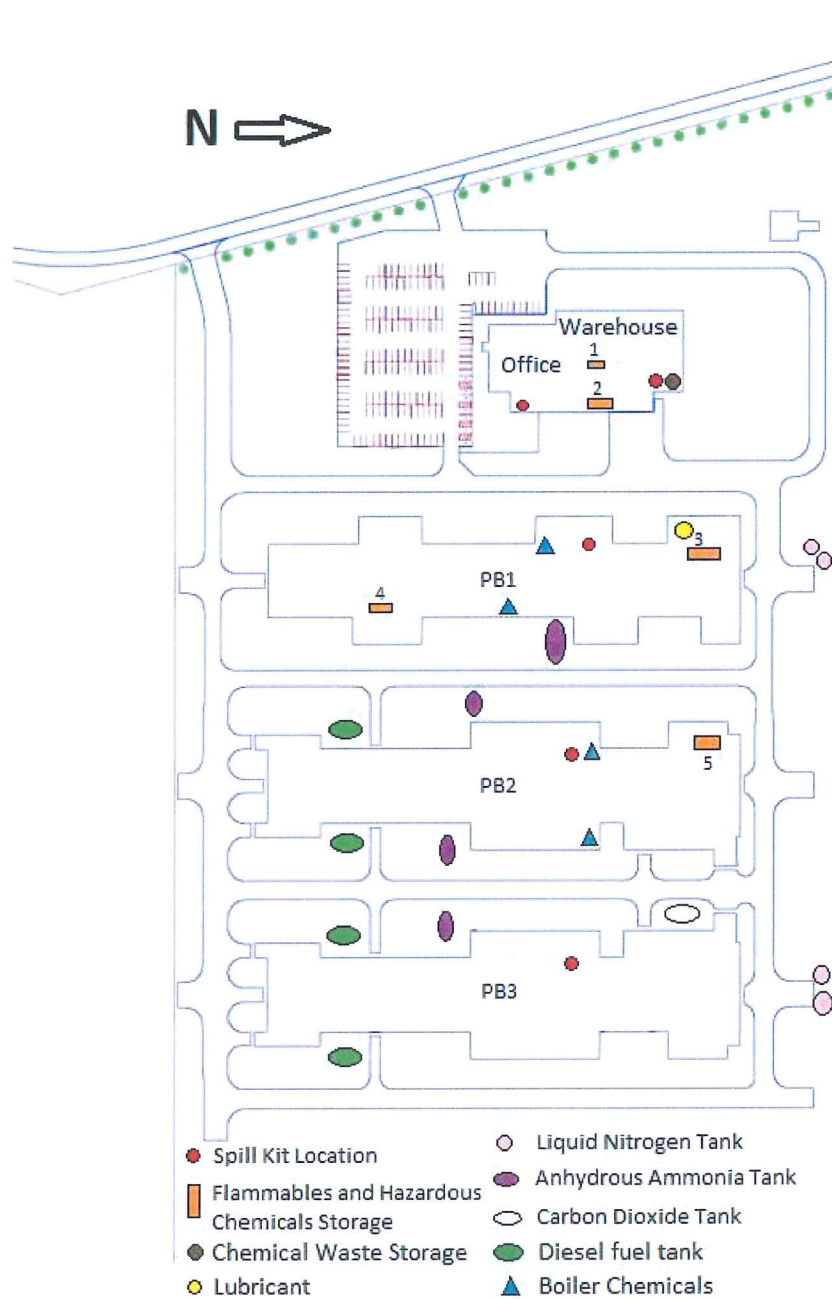


Figure 2. Hazardous chemicals and spill kit storage locations



**Table 1. Oil Storage**

Type of Oil	Location	Quantity	Secondary Containment	Potential Direction, Rate of Flow, and Total Quantity
Schaeffer's lubricant & hydraulic fluid	Mechanical Room (PB1)	7 x 55-gallon drums (approx.)	Spill Pallets	Potential spill to spill pallet containment in immediate vicinity, quantity of up to 55-gallons
Diesel Fuel	Emergency Generators, Lines 3-5	1250 gallons (Line 3) 1250 gallons (Line 4) 1700 gallons (Line 5)	Double-walled tanks	Potential spill to double-walled tank containment in immediate vicinity, quantity of up to 1250 gallons or 1700 gallons.

**Table 2. Emergency Contact Numbers**

SGL ACF Environmental Engineer: Nichol Savko	509-750-3704
SGL ACF HSE Coordinator: Ronald Roth	509-989-8675
Emergency Services	9-911
Fire Department Direct Number	509-765-2204
Police	509-762-1160
Department of Ecology (weekdays/daytime): Pat Hallinan	509-329-3500
Department of Ecology (24 hrs)	509-329-3400
Public Works Department	509-764-3951
POML: Rich Mueller	509-762-5054
National Response Center	1-800-424-8802
State Emergency Response Center	1-800-258-5990
Local Emergency Planning Committee	509-237-2598

## Slug Load Discharge Plan

**SGL**

AUTOMOTIVE CARBON FIBERS

A BMW Group and  
SGL Group Joint Venture

**Slug Load Discharge Control  
Plan**

8781 Randolph Road NE  
Moses Lake, WA 98837

# **SLUG LOAD DISCHARGE CONTROL PLAN**

Revised: July 16, 2015

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## 1.0 Purpose

The purpose of this document is to minimize the potential of non-routine, non-customary batch discharges to the City of Moses Lake Larson Publicly Owned Treatment Works (POTW) and to the Port of Moses Lake water treatment system (POML).

## 2.0 Scope

This procedure applies to all discharges to the industrial and sanitary sewer system at the SGL Automotive Carbon Fibers LLC (SGL ACF) Moses Lake facility.

## 3.0 References

SGL ACF State Waste Discharge Permit Number ST-0501273.

## 4.0 Responsibilities

The SGL ACF Emergency Coordinator has primary responsibility for response to emergencies. Supervisors should ensure that team members are familiar with these procedures. Furthermore all team members should follow these procedures in the event of slug discharge. It is the Emergency Coordinator's responsibility to ensure effective implementation of this procedure.

## 5.0 Slug Discharge Control Plan Components

Special Condition 12 of the discharge permit ST-0501273 requires that the following information and procedures relating to the prevention of unauthorized slug discharges be included in the slug discharge control plan.

1. In the event of a hazardous material incident that results in an unpermitted release into the domestic or industrial sewers, the team member who discovers the release must immediately report it to the supervisor in charge and the supervisor in charge will notify the Health, Safety, Environmental Department. The HSE Department will notify the appropriate agencies:

<b>Department of Ecology (business hours): Pat Hallinan</b>	<b>509-329-3500</b>
<b>Department of Ecology (24 hrs)</b>	<b>509-329-3400</b>
<b>Sewer discharge (POTW)</b>	<b>509-764-3951</b>
<b>Industrial discharge (POML)</b>	<b>509-762-5054</b>

The supervisor in charge will fill out an incident report in the Compliance Management System as soon as possible, but no later than 8 hrs from the time of discovery of the incident. The Environmental Engineer will send a written report to DOE and POML or POTW (as applicable) within 5 days of the incident. The report will include an analysis of the cause of the release and corrective actions to reduce the risk of the incident re-occurring.

**2.** The SGL ACF industrial waste water includes but is not limited to reverse osmosis reject water, periodic discharges from bicarbonate rinse baths, boiler blow downs, and onsite nitrogen plants' condensate. All the waste water created at SGL ACF is either discharged to the POTW or to the POML using separate pipelines. The facility's domestic waste water from the office and the production buildings gravitationally flows to the domestic sewer lift station at the SE corner of the property before being discharged into the POTW system. The SGL ACF's process building floor drains and industrial waste water gravitationally flow towards the south, into a wet well, Manhole# 14, before it is discharged to the POML's lift station. Figure.1 shows the SGL ACF waste water flow diagram. There is no waste water treatment and storage capacity at the SGL ACF facility.

Chemicals or raw materials will be stored inside buildings or under cover. All storm water at the SGL ACF facility flows into dry wells that are staggered throughout the facility. The dry wells prohibit any storm water runoff from the site.

All team members will be trained at hire and annually thereafter on the spill control plan and slug discharge plan. Also, each team member will participate in relevant training before operating company equipment.

**3.** To prevent adverse impacts from accidental spills, the following procedures will be implemented.

- a.** Equipment and hazardous substance storage areas will be periodically inspected to ensure leaks or spills are not occurring
- b.** All hazardous substances in the facility will be properly stored, dispensed, and/or used in a way that prevents release.
  - All hazardous substance containers will be in good condition and compatible with the materials stored within.
  - Open container use of hazardous chemicals near sinks and floor drains will be avoided.
  - If open container use of chemicals near floor drains is unavoidable, the floor drains will be plugged.
  - Chemicals will be stored on pallets, in cabinets, or on secondary containment.
  - To minimize the storage quantities, hazardous chemicals will be ordered as needed.
  - Unwanted chemicals and hazardous waste will be properly disposed of.
- c.** Any slug discharge that may occur at the shipping and receiving docks that flows into the dry well will be cleaned properly.
- d.** Plant site storm water is collected in the dry wells that are located within the property.
- e.** Chemicals will be stored inside the buildings or under cover.
- f.** Solvent absorbent pads will be kept in the laboratory where solvents are used.
- g.** Spill kit materials and overpack/salvage drums will be kept on hand for quick response to contain any leaked material.

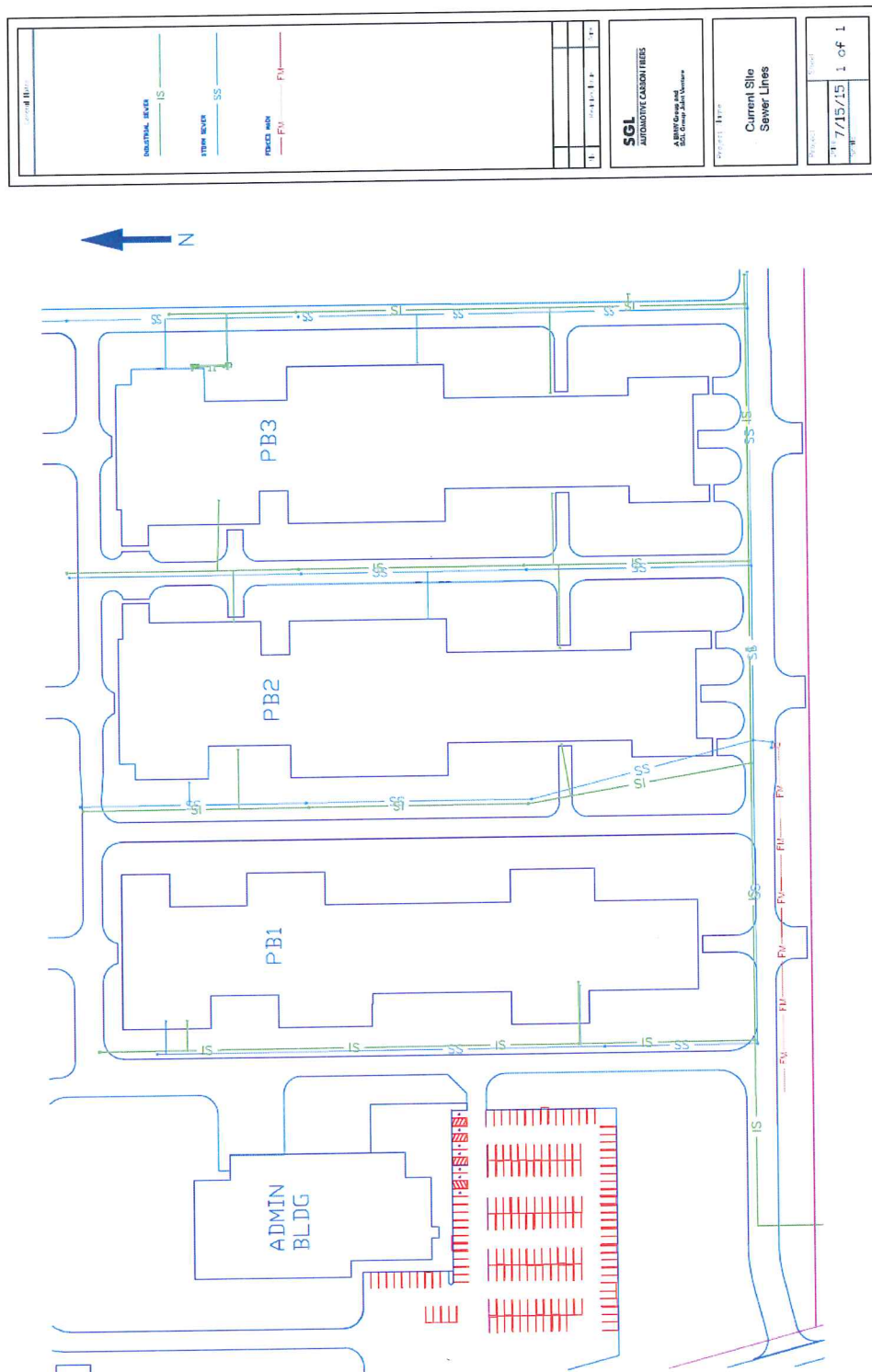


Figure.1 SGL ACF waste water flow diagram

4. The SGL ACF facility processes polyacrylonitrile to produce automotive carbon fibers. Epoxy and ammonium bicarbonate solutions are used during this process. The off gasses that are created during the carbon fiber manufacturing process are controlled by air quality permits. Other chemicals are stored and used throughout the plant for production, maintenance, laboratory, and other necessary operations. An inventory of all chemicals that are used, stored, and produced at the SGL ACF facility is maintained on SiteHawk, an online MSDS repository (accessible within the company main drive at Main\ShareAll\SiteHawk ). Team members have 24/7 access to the MSDSs. See Table.1 for a list of normal quantities of chemicals maintained on the premises. Figure.2 shows a facility map indicating the storage and usage locations of each chemical found in Table.1.

5. Batch discharges might occur due to plant shutdown, equipment failure or maintenance operations. Under normal operating conditions SGL ACF is expected to discharge an average of up to 135,000 gallons of industrial waste water per day, based on operation of six lines, into the POML.

### Raw Materials

Type	Quantity (On Site)
Ammonium bicarbonate	180,000 lbs
Anhydrous ammonia	667 gallons
Methyl Ethyl Ketone	30 gallons
Pyrofil AH Precursor	800,000 lbs
Duroxyn SEF 968	80,000 lbs
Antichlor 30	90 gallons
Vitec 3000	20 gallons
Acetone	30 gallons
Ethanol	8 gallons
All in One BT	400 liters
Caustic	400 liters
Powdered Sulfite	400 liters
Vitec 4000	180 gallons
Bio Power 524	20 gallons
Antichlor 427	110 gallons
Safe-T-Therm heat transfer fluid	440 gallons
909 Cooling Tower Biocide	40 gallons
CTT 20S	40 gallons

Note: values are for 4 production lines

Table.1 List and quantities of raw materials and chemicals kept on site at SGL ACF



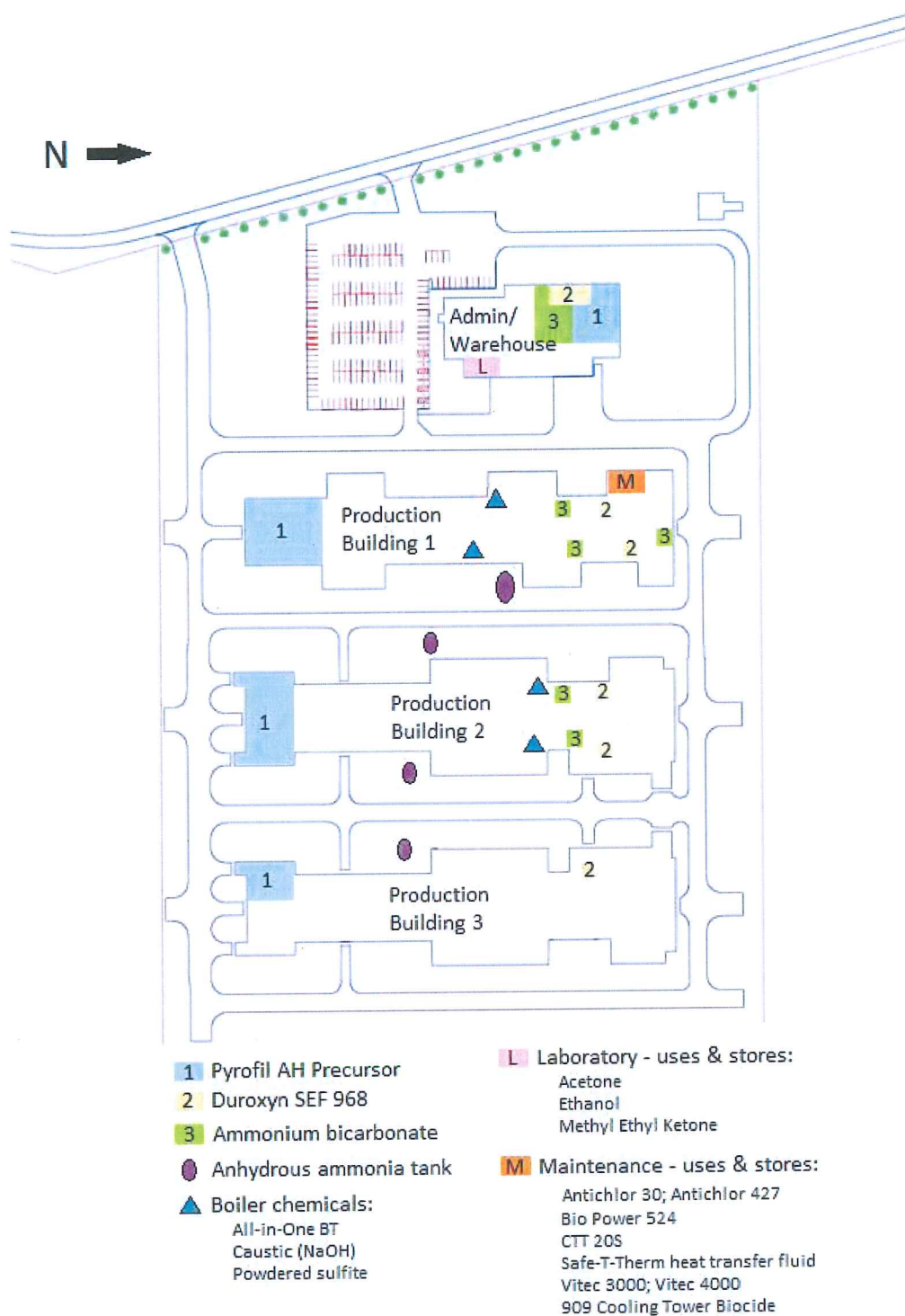


Figure.2 Locations of hazardous material storage and usage areas throughout the SGL ACF facility

## **6.0 Reporting and Recordkeeping**

All slug discharge incidents that effect the POML or POTW systems will be reported to the DOE and either POML or POTW, and followed up with a written report within 5 days of the incident. If a spill poses a threat to human health or the environment, the Emergency Coordinator must immediately report it to 911. All slug discharge incident reports will be kept in the Compliance Management System. Team member training records are kept in the Human Resources Team Member Training binder, online on the Compliance Management System, in the Production training folder, or in the Safety training folder.