

ABC CIRCUITS
10 Circuit Drive
Circuit Town, IN 12345

SLUG CONTROL PLAN

The purpose of this plan is to provide detailed instructions for slug prevention and control.

A complete copy of this plan is maintained at the following locations:

1. Materials Department
2. Security Desk
3. Safety Office

This plan will be updated whenever the situation dictates, and all departments and locations will receive updated copies.

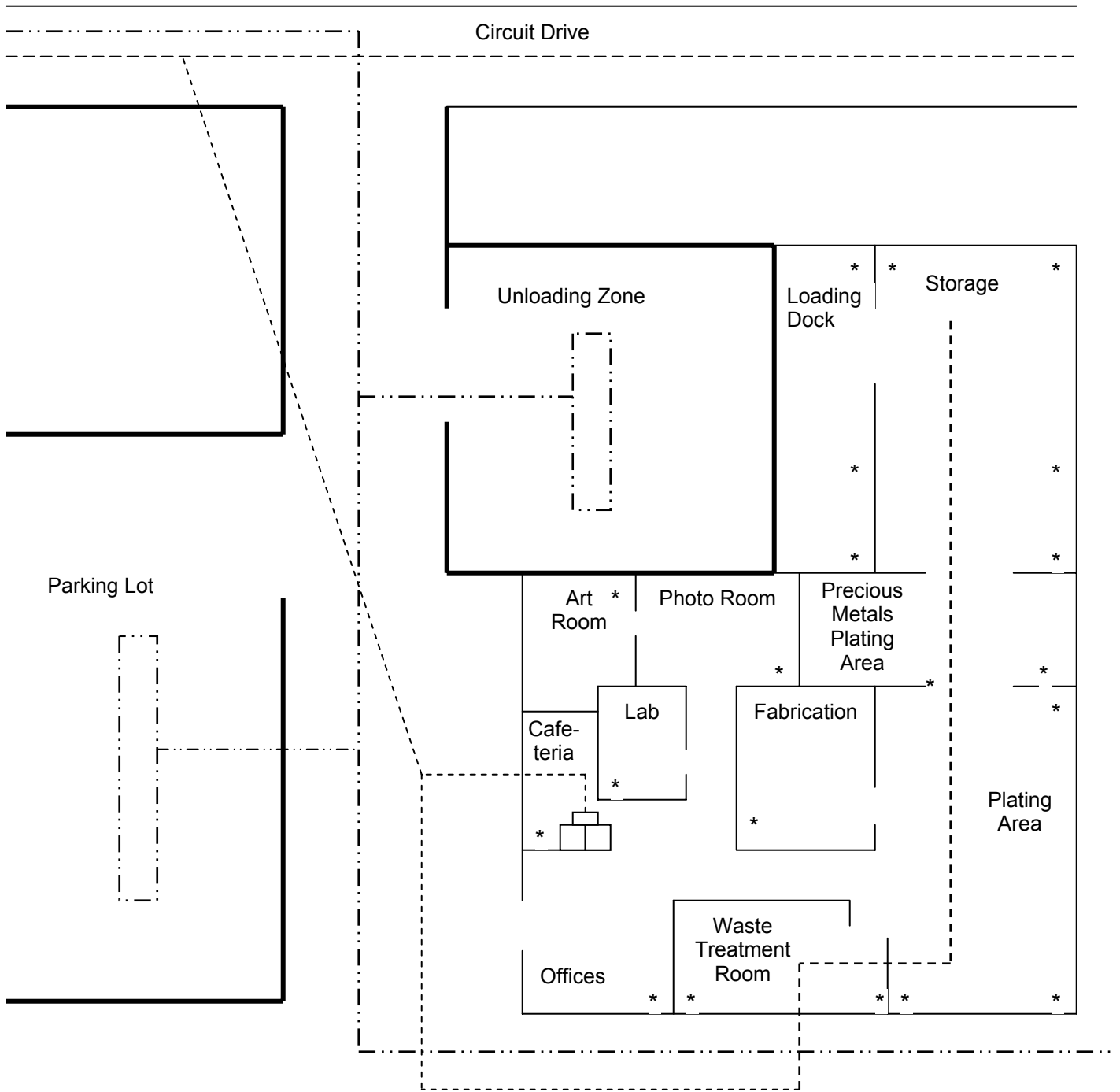
Emergency Contact:	Chip Smith	Work Phone: (111) 222-3333
Title:	Plant Manager	Emergency Phone: (111) 123-4321
Secondary Contact:	Susan Jones	Work Phone: (111) 222-3333
Title:	Safety Supervisor	Emergency Phone: (111) 234-5432

FACILITY DESCRIPTION

ABC Circuits is a printed circuit board manufacturer. The facility operates two shifts per day, Monday through Friday, from 7:00 a.m. to 3:00 p.m. and 3:00 p.m. to 11:00 p.m. There are 75 people employed on the first shift and 19 during the second. Approximately 300 finished boards are manufactured per day.

Sources of wastewater from the printed circuit board manufacturing operation includes rinse water, spent process baths, and spent cleaning solutions. Hazardous materials are stored until removed to a licensed disposal site with the specified 90 - day period. Wastewater is neutralized with sodium hydroxide and is batch discharged to the city sewer system at a pH range of 6 - 9.

ABC CIRCUITS



----- Sanitary Sewer

- . - . - . Storm Sewer

* Fire Extinguisher

TABLE A. CHEMICAL AND MATERIAL INVENTORY

<u>Chemical</u>	<u>Location in Plant</u>	<u>Maximum Volume</u>	<u>Container Type</u>	<u>Container Volume</u>	<u>Remarks</u>
Copper Plating Batch - Copper Sulfate - Sulfuric Acid	Plating Room	2,000 gallons	Tank	2,000 gallons	Spill from failure of copper plating tank or filter pump system.
Electroless Copper Solution - Copper Salts - Formaldehyde - Methanol	Storage Area Plating Room	350 gallons 150 gallons	Drum Tank	55 gallons 150 gallons	Spillage from storage drums, plating tank, or addition pump.
Etchant	Storage Area Plating Room	600 gallons 150 gallons	Drum Tank	55 gallons 150 gallons	Spillage from storage drums; failure of etcher feedline; failure of etcher container feed
Methylene Chloride	Storage Area Plating Room	1,000 gallons 500 gallons	Tank Tank	1,000 gallons 500 gallons	Spill from failure of storage tanks, recovery till tank, R&R machine containment structure, or inter-connecting pipe. If involved in a fire or chemical reaction, it could give off chloride gas and other poisonous gases, such as phosgene.
Nickel Plating Solution - Nickel sulfamate	Plating Room	110 gallons	Tank	55 gallons	Spillage from storage containers failure of nickel plating tank
Screen Wash - Toluene - Acetone	Photo Dept.	800 gallons	Tank Drum	300 gallons 55 gallons	Spillage from storage drum; failure of recirculator in spray booth
Sulfuric Acid	Plating Room	1,000 gallons	Tank	55 gallons	Spillage from storage drums
Trichloroethane	Plating Room	500 gallons	Degreasing Unit Tank	50 gallons	Spill from failure of storage tanks, containment structure, or inter-connecting pipe net. If involved in a fire or chemical reaction, it could give off chlorine gas and other poisonous gases, such as phosgene.

REPORTABLE MATERIAL DATA

Table A is a list of chemicals present in large quantities. It includes all substances that are listed, or have components that are listed, as hazardous materials and are present in quantities greater than 55 gallons or the Reportable Quantity (RQ) of the hazardous material.

SLUG PREVENTION

All drums are to be marked with a hazardous waste label and must be sealed at all times when not being filled or dispensed from. Drums put up in the dispensing rack are to be fitted with approved faucets and pressure relief devices. Drip cans are to be kept under facets at all times.

Plating tanks must be visually inspected by the shift supervisor at the beginning and end of each shift for any signs of leakage or potential problems. An inspection log will be maintained by the safety officer.

All batch operation discharges must be tested for pH and neutralized if appropriate. Continuous pH monitoring must be conducted during discharge.

SPILL CONTAINMENT

The first concern is to stop the source of the spill and provide ventilation to the area. Leaking containers must have their contents reconfined by transferring the chemical or confining the container. The spilled material must be kept from reaching a floor drain or from soaking into the ground. Inert absorbent material, rags, paper towels, and such can all be used to sop up such a spill or dike it away from a sewer or open ground. Do not use iron or any item that could spark a flammable material while cleaning up. Wear a respirator for cleaning spills of over 1/2 gallon. If a solvent odor is strong, clear the area of all but the cleanup crew, who must wear respirators. Neoprene gloves and boots will have to be used by the cleanup crew unless more inert material is available. Contaminated earth must be dug up and drummed for disposal. For a spill of a few gallons, the best procedure is to isolate the spill and soak it up with inert media, taking all safety precautions and disposing in a flammable waste can. Larger spills will require a separate disposal drum and a more extensive cleanup. If a spill results in the material reaching the sewer system, stop the municipal drain and halt any more solvent from reaching the sewer, and notify the appropriate authorities.

EMERGENCY RESPONSE EQUIPMENT INVENTORY

1. 8 SCBA emergency air packs (Lab)
2. 21 fire extinguishers (located throughout the facility)
3. 20 gallons of acid neutralizer (Waste Treatment Room)
4. 8 sets of protective clothing (Lab)
5. 50 lbs absorbent material (Waste Treatment Room)
6. Portable eye showers
7. Fire alarms.

EMERGENCY RESPONSE PROCEDURES

Any employee discovering the release of any toxic or potentially hazardous material that is not readily controlled must activate the emergency alarm and notify an emergency coordinator. The name and phone number of the emergency coordinator is posted throughout the facility.

In the event of any release of potentially toxic or hazardous materials necessitating evacuation, the emergency coordinator will assess the situation and notify all appropriate agencies.

Control and containment of any spill of hazardous materials will be accomplished through the use of materials and procedures readily available throughout the facility and manufactured specifically for the materials involved.

It is not anticipated that outside contractors will be utilized, however, the companies listed below have available the necessary equipment and manpower for cleanup of a spill:

- | | |
|--------------------|-----------------------|
| 1. Spill Away | Phone: (111) 777-8888 |
| 2. Cleanland, Inc. | Phone: (111) 777-9999 |

SLUG REPORTING PROCEDURES

After any reportable Incident, a member of the emergency coordinators group will notify the EPA Regional Administrator and any appropriate State and local agencies that all appropriate follow-up actions have been implemented per the facilities' Slug Control plan. This and all other needed reports will be processed within five days of the incident.

TRAINING

All personnel involved in manufacturing and cleanup activities will receive instruction in the proper handling and disposal of chemicals and cleanup materials in order to keep regulated materials out of industrial wastewater. New employees will be trained in these procedures immediately. All personnel working in these activities must be familiar with this plan and must follow the procedure established to eliminate regulated materials from entering the wastewater system.

Training consists of classroom instruction, which reviews the following:

1. The chemicals known to be used at the plant and the areas in which they are used;
2. The location of lift stations and drains with emphasis upon the location of pretreatment system systems for each **area** in the plant;
3. The Slug Control Plan and the proper procedures for handling and disposing of hazardous materials.

CERTIFICATION

BASED ON MY INQUIRY OF THE PERSON OR PERSONS DIRECTLY RESPONSIBLE FOR MANAGING COMPLIANCE WITH TIE SLUG CONTROL MEASURES IN TIE SLUG CONTROL PLAN, I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS FACILITY IS IMPLEMENTING THE SLUG CONTROL PLAN SUBMITTED TO THE [POTW].

 NAME/TITLE OF AUTHORIZED REPRESENTATIVE
 OF THE IU RESPONSIBLE FOR THE SLUG CONTROL PLAN

DATE

I CERTIFY THAT THE SLUG PREVENTION AND CONTROL EQUIPMENT INSTALLED BY THE INDUSTRY WILL PROVIDE ADEQUATE PROTECTION FROM SLUG LOADING WHEN USED AND MAINTAINED PROPERLY.

NAME

DATE