

Synrad/Novanta Mukilteo, WA

Spill Prevention Plan

1. Spill Response Training

Prior to working in an area of potential spills, the selected employee will be informed by an experienced employee what to do in case any liquid process material spills, and if/how they need to report the spill per this Spill Plan. This new operator will also receive a copy of this plan and will sign a posted record tracking understanding, the date and the name of the newly trained employee.

2. Spill Notification

For any spill that enters a floor drain, process sink or other drainage system, immediately notify the Plant Manager: **Fredrik Haggett, 206.349.0963**

The **VP of Operations: Jeff Fowler, 425.609.5112**, will handle all appropriate reports and responses for internal activity and to legal authorities. Because there is so little risk for a small spill to require notification of any authorities, internal reporting is primarily to ensure employee safety, and to review so that there are no repeat spills.

For large internal spills (greater than 10 gallons) to a floor drain or process sink, as a courtesy (see Notes column in materials list below), the **VP of Operations** should notify **Alderwood Water & Wastewater District: 425-743-4605** (operations office).

However: for a spill 1) greater than 10 gallons of unused Alcohol, or 2) greater than 20 gallons of waste alcohol mixed with process rinse water, going into the floor drain in the Wet Process Room the **Wastewater District** will need to know immediately about such a spill or discharge because of the risk for fire resulting from a large volume of flammable liquid in the sewer lines, and for the risk of a potential inhalation hazard for sewer district employees – so a notification is needed! After alerting the Wastewater District, notify **Ecology** about the spill/discharge.

In the very unusual event that there is any kind of spill should occur outside the building (this risk is primarily at the loading dock) which enters a storm drain, the **VP of Operations** must **immediately** notify **The WA Dept. of Ecology Northwest Regional Office: 425-649-7000** and take efforts to minimize the amount of material entering into the storm drain(s). But if the spill does **not** have a risk of entering a storm drain, a careful clean-up is all that is required.

3. Spill Controls (or Why a Spill Will NOT Directly Enter State Waters)

1. There is only one floor drain discharge to the sanitary sewer - not to state waters (see Fig. 1).
2. All process sinks discharge to the process monitoring line, thence to the sanitary sewer.
3. All other facility sinks discharge directly to the sanitary sewer.
4. All operations involving process materials are conducted in the Wet Process Room.

Therefore, the risk of a spill directly entering state waters during normal operations is nil.

Note that the only time large quantities of materials could be at risk of entering state waters is at the loading dock while unloading materials from the courier during receiving. The likelihood of any spill going to the ground is very small since any spill would occur either inside the delivery truck or inside the loading dock area - the likelihood of a spill getting on the pavement and then into a storm drain is vanishingly small – but if a spill should happen to occur, follow **Section 2** above.

4. Materials Inventory and Locations

The following page lists all of the materials currently being used and/or stored at this facility. The maps show what and where in the building the materials are stored, with a list of typical container sizes, and possible opportunity factors for spills to the floor, to sanitary drains, or to spills outside the building.

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Raw Materials List - with spill opportunity** and waste type

Product Name	Material Type	Container Size	Spill Opportunity			Hazardous Waste Type	Notes (Use, Likely Spill Quantities, Spill Hazards, ...)
			Floor ^a	Drain ^b	Outside ^c		
Valtron EF5401	pH Neutral Surfactant	5 gal	1	1	0	Non Haz	Sewer spill: risk of possible foaming
Protex	Aluminum Cleaner	1 gal	1	1	0	Non Haz	Sewer spill: pH of non-diluted liquid is pH 2.5
Alcohol – bulk storage	Flammable Organic Solvent	55 gal	1	1	1	Haz Waste Flammable	Sewer spill: risk of flammable material in sewer pipes Floor spills: risk of fire and noxious vapors for employees Outside spill: prevent from entering storm drains Outside spill: if enters drain(s) Alert Dept. of Ecology and Alderwood Waste Water Plant immediately
50% Sodium Hydroxide	Highly Caustic	4 liters	1	1	0	Haz Waste Corrosive	Used for adjusting pH of process wastewater Quantities handled are typically small
25% Phosphoric Acid	Highly Acidic	4 liters	1	1	0	Haz Waste Corrosive	Used for adjusting pH of process wastewater Quantities handled are typically small
Alcohol – user quantities	Flammable Organic Solvent	< 1 pt.	1	0	0	Haz Waste Flammable	Minimal risk due to extremely small volumes
Acetone	Flammable Organic Solvent	< 1 gal.	1	0	0	Haz Waste Flammable	Minimal risk due to small volumes

** Risk for spill opportunities – codes for level of risk (if employees are not careful): 0=nil 1=minimal 2=fair 3=likely

^a = Opportunity for a spill to occur on the floor inside the building. In unlikely case small quantities of liquids are spilled. (wet room excluded)

^b = Opportunity for a spill to enter a floor drain (then directly to the sanitary sewer lines). Taken as 'nil' for small volumes as they would have minimal impact on the sewer system. For larger volumes, the likelihood of having the larger container empty all contents is still minimal, but the likelihood of reaching the drain is higher ('fair' or 'likely') - but the likelihood of even having a spill is even less likely as the bulky size and shape of the containers is not conducive to having someone moving containers carelessly.

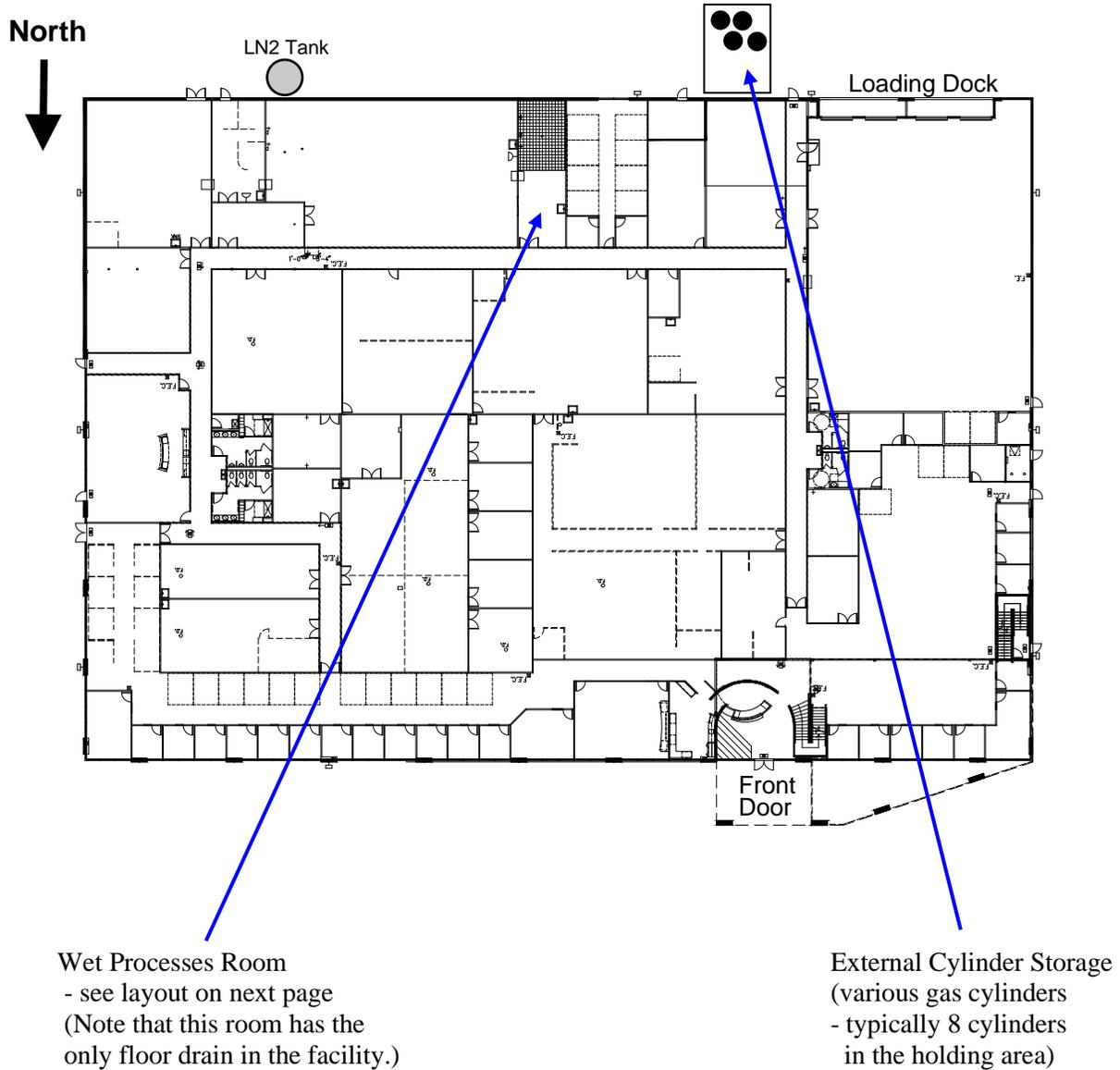
^c = Opportunity for spills outside the building. These are taken as 'nil' for all small container materials since they are normally inside boxes when being handled outside. Likelihood is taken as 'minimal' for 55 gal. drums since a spill would be highly unlikely for the plastic drums in use.

^d = Hazard Waste Type as identified in WA Ecology Hazardous Waste regulations **WAC 173-303-090**.

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Fig. 1 Building Layout



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Fig. 2 Wet Process Room Layout – Materials Use and Storage

