

**Scrap Metal
Qualified SWPPP Practitioner
(SM-QSP)**

program implementation

Who May Be a Scrap Metal Qualified SWPPP Practitioner?

- **Scrap Metal Qualified SWPPP Developer**
- **Scrap Metal Qualified SWPPP Practitioner**

Storm Water Pollution Prevention Plan Action Overview

- **Ensure full implementation of the SWPPP**
- **Visual observations**
- **Sampling and analysis oversight**
- **Evaluate and report on compliance**

Storm Water Pollution Prevention Plan (SWPPP)

Contents

- Facility information
- Preventative & mitigative measures
- Visual inspections
- Storm water monitoring
- Reporting

Approved Signatory

Scrap Metal Qualified SWPPP Practitioner

- prepares documents for submittal in SMARTS

Approved Signatory

- certifies submittal

SWPPP – Phase I Preventative Measures Inventory

Frequency: monthly

Record Keeping: preparer's name and signature,
date prepared

- Storage locations and handling procedures
- Current inventory of materials and chemicals

SWPPP – Phase I Preventative Measures

Employee Training

New Employees: within 30 days of employment

All Employees: annually

Record Keeping: document training topics, attendees, dates of training

- SWPPP implementation

SWPPP – Phase I Preventative Measures

Preventative Measure Maintenance

Frequency: on-going

Record Keeping: document all maintenance activities performed, date, name, and signature

- Pollution prevention control measures
- Drip pans
- Sweeping

SWPPP – Phase I Mitigative Measures

Treatment Control Maintenance

Frequency: on-going

Record Keeping: document all maintenance activities performed, date, name, and signature

- Treatment control maintenance

SWPPP – Phase I Preventative Measures

Regularly Scheduled Inspections

Frequency: regular schedule (e.g., weekly)

Record Keeping: document activities, date, name, and signature

- Vehicles and equipment – spills, leaks, or other malfunctions

SWPPP – Phase I Preventative Measures

Monthly Inspections

Frequency: monthly (15+ days apart)

Record Keeping: document activities, date, name, and signature

- All industrial areas
- Housekeeping – debris, wastes, trash, spilled or leaked materials
- Catch basin maintenance

SWPPP – Phase I Preventative Measures

Rain Event Action Plan (REAP)

Frequency: 40% chance of rain

National Weather Service (www.weather.gov)

Record Keeping: document all REAP activities
date and sign for each event

- Ensure all control measures are fully functional
- Housekeeping (including sweeping)
- Cover trash
- Temporarily cover exposed material
- Isolate industrial areas from contact with rainfall and runoff



Storm Event Visual Monitoring

Frequency: during storm events that produce discharge from the site (≥ 0.1 " rainfall)

Record Keeping: date, weather conditions, findings, corrective actions implemented, SWPPP revisions required, and name of inspector

- Inspect all discharge points (oil sheen, turbidity, sediment, debris, trash, foam, and/or floatables)

SWPPP – Monitoring Sample & Analysis

**Frequency: 4 qualifying storm event samples
per year
per discharge location**

Monthly, starting July 1st of each year

Who: Certified Person

**Record Keeping: upload to SMARTS Ad Hoc report
within 30 days of receipt of sample analysis results**

Table 2: Parameters, Sample Type and Frequency

Parameter	Units	Type of Sample	Frequency
Flow	mgd	Estimate	4 times/year
pH	pH units	grab ³³	4 times/year
Turbidity ³⁴	NTUs	grab	4 times/year
Oil and Grease	mg/l	grab	4 times/year
Specific Conductance	µmhos/cm	grab	4 times/year
Total Petroleum Hydrocarbons	µg/l	grab	4 times/year
Zinc (total recoverable)	µg/l	grab	4 times/year
Lead (total recoverable)	µg/l	grab	4 times/year
Nickel (total recoverable)	µg/l	grab	4 times/year
Silver (total recoverable)	µg/l	grab	4 times/year
Aluminum (total recoverable)	µg/l	grab	4 times/year
Copper (total recoverable)	µg/l	grab	4 times/year
Iron (total recoverable)	µg/l	grab	4 times/year
Cadmium (total recoverable)	µg/l	grab	4 times/year
Arsenic (total recoverable)	µg/l	grab	4 times/year
Chemical Oxygen Demand (COD)	mg/l	grab	4 times/year
PCBs	µg/l	grab	1 st year after permit adoption (first storm sample)
Toxicity (Acute test)		grab or composite	4 th year after permit adoption (first storm sample)

Note - pH, turbidity and specific conductance shall be measured in the field using a calibrated portable instrument as soon as a sample is collected.

Table 1a Numeric Action Levels for Option 1

[Also see Attachment B for Alternate Action Levels for Copper, Lead and Zinc.]

Item No.	Constituent ¹⁴	Units	Action Level (Annual average) ¹⁵
1	pH	pH units	6.5 to 8.5 ¹⁶
2	Turbidity	NTU	250 ¹⁷
3	Specific Conductance	µmhos/cm or µsiemen/cm	2000 ¹⁸
4	Oil and Grease	milligrams/liter	15 ¹⁹
5.	Chemical Oxygen Demand (COD)	milligrams/liter	120 ¹⁹
6.	Aluminum (total recoverable)	milligrams/liter	0.75 ¹⁹
7.	Copper (total recoverable)	milligrams/liter	0.0189 ²⁰
8.	Iron (total recoverable)	milligrams/liter	1.0 ¹⁹
9.	Lead (total recoverable)	milligrams/liter	0.122 ¹⁹
10.	Zinc (total recoverable)	milligrams/liter	0.16 ¹⁹

Sample Result Analysis

Exceedance – twice the action level

e.g., Chemical Oxygen Demand (COD)

Numeric Action Level: 120 mg/L

Results (mg/L)

95

90

180 ← exceedance, but not more than two times

85

(pH exceedance: < 5.5 pH units or > 9.5 pH units)

Sample Result Analysis

Arithmetic Annual Average

Arithmetic Average: pH

Add sample results and divide by the number of values.

$$\frac{6.4 + 6.9 + 6.8 + 6.6}{4} = 6.675$$

Sample Result Analysis

Geometric Annual Average

Geometric Average: turbidity, specific conductance, oil & grease, chemical oxygen demand, aluminum, copper, iron, lead, zinc

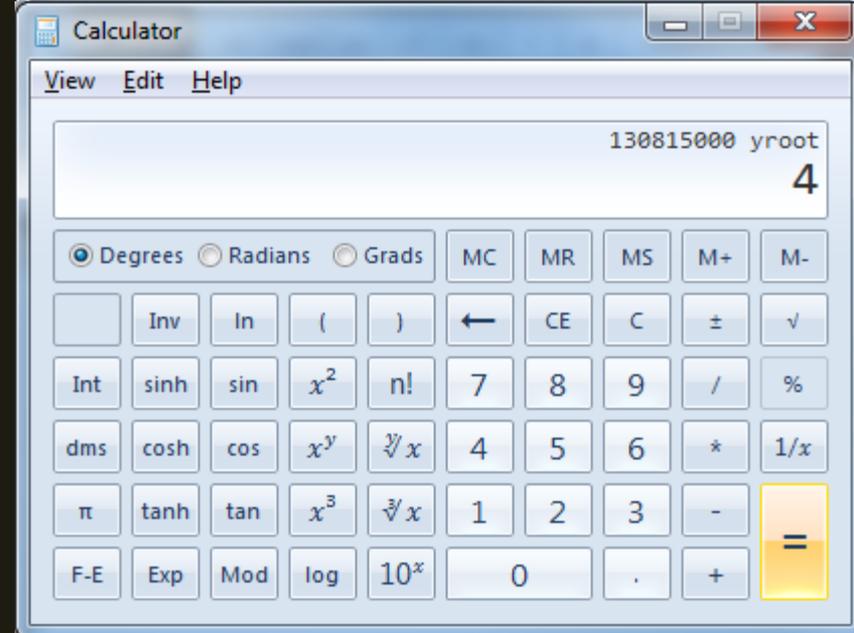
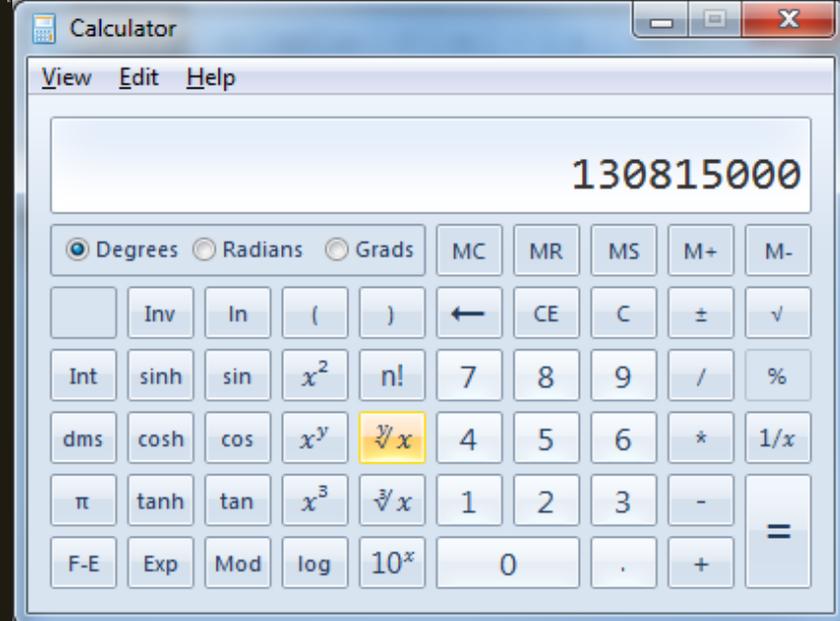
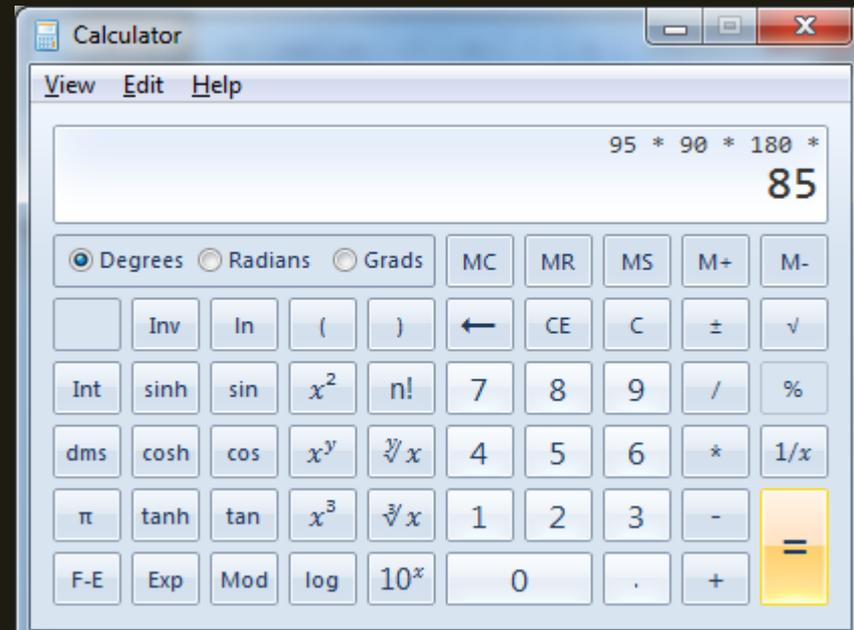
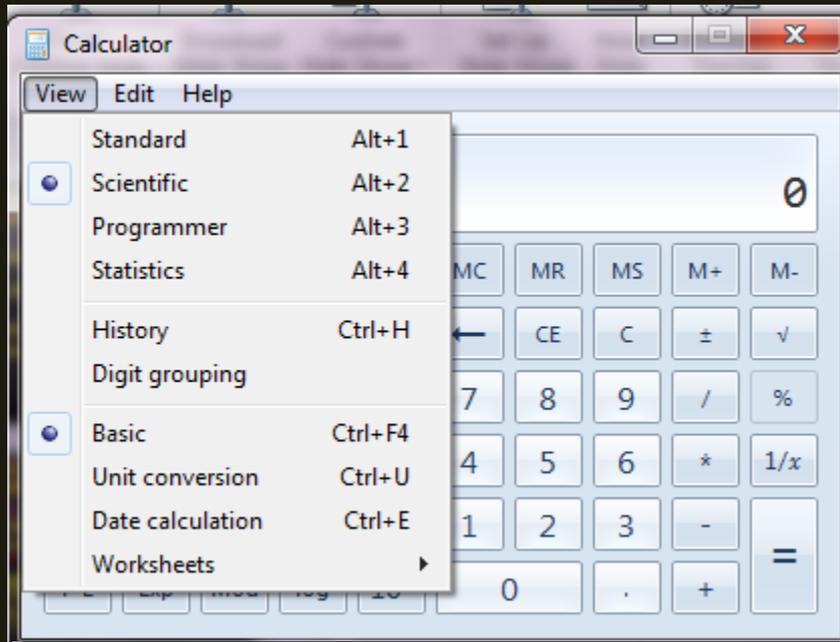
Multiply sample results and apply root of number of samples

$$\sqrt[4]{95 \times 90 \times 180 \times 85} = 106.9 \text{ mg/L}$$

$$(95 \times 90 \times 180 \times 85)^{\frac{1}{4}} = 106.9 \text{ mg/L}$$

(value 1 * value 2 * value 3 * value 4) ¹ / number of values

$$(85 * 80 * 180 * 85)^{1/4} = 130,815,000^{1/4} = 106.95$$





Calculator



View Edit Help

106.94596076722557070682612163251

<input checked="" type="radio"/> Degrees <input type="radio"/> Radians <input type="radio"/> Grads			MC	MR	MS	M+	M-		
	Inv	In	()	←	CE	C	±	√
Int	sinh	sin	x^2	n!	7	8	9	/	%
dms	cosh	cos	x^y	$\sqrt[y]{x}$	4	5	6	*	1/x
π	tanh	tan	x^3	$\sqrt[3]{x}$	1	2	3	-	=
F-E	Exp	Mod	log	10^x	0	.	+		

Sample Result Analysis

Compare Annual Average to NAL

Chemical Oxygen Demand

Sample Annual Average: 106.9 mg/L

Numeric Action Level: 120 mg/L

Annual Average is less than Numeric Action Level

Sample Result Analysis

Area-Weighted Average

	<u>Discharge Point 1</u>	<u>Discharge Point 2</u>
	<u>60%</u>	<u>40%</u>
	95 mg/L	103 mg/L
	90 mg/L	117 mg/L
	180 mg/L	98 mg/L
	85 mg/L	106 mg/L
Annual Average	106.9 mg/L	105.8 mg/L
Annual Weighted Average	$106.9 \times 0.60 = 64.14$	$105.8 \times 0.40 = 42.32$

Combined Area-Weighted Annual Average: $64.14 + 42.32 = 106.46$ mg/L

Chemical Oxygen Demand – Numeric Action Level: 120 mg/L

Area-Weighted Annual Average: 106.5 mg/L

Area-Weighted Annual Average is less than Numeric Action Level

Sample Result Analysis

Credit

Non-Polluting Coverage of Industrial Areas: 25%

Numeric Action Level: 120 mg/L

Sample Annual Average: 106.9 mg/L

Less 25%:

$$106.9 \times 0.25 = 26.6 \text{ mg/L}$$

$$106.9 \times 0.75 = 80.2 \text{ mg/L}$$

Annual Average less credit is less than Numeric Action Level

Compliance Option 1

Phase II

When: If Numeric Action levels are exceeded

By June 30, 2013: Assess monitoring results to determine if Phase advancement triggers have been exceeded

By July 31, 2013: If so, reassess Phase I pollution control measures and consider additional measures

By August 15, 2013: Submit Corrective Action Plan to Regional Board for approval

Reporting

Unauthorized Non-Storm Water Discharge

If discharge poses an immediate threat to:

- **human health**
- **Environment**

Provide notification to Regional Board within:

- **24 hours**
- **Oral or email**

Reporting Annual Report

- **August 1st: submit in SMARTS for preceeding July 1 to June 30 reporting year**
- **Includes monitoring data, any new pollution control measures implemented, any additional treatment controls, and any corrective actions implemented to address any exceedances of water quality standards**

Record Keeping

Retain copies of all records, paper or electronic:

- **for at least five years**
- **from the date generated or date submitted to the Regional Board**
- **Regional Board may request records be retained beyond five years**

Monitoring Reductions

Visual Monitoring Frequency Reduction

Eliminate Storm Water Sample Constituent

Storm Water Sample Frequency Reduction

Monitoring Reductions

Visual Monitoring Frequency Reduction

The frequency of visual monitoring may be decreased if:

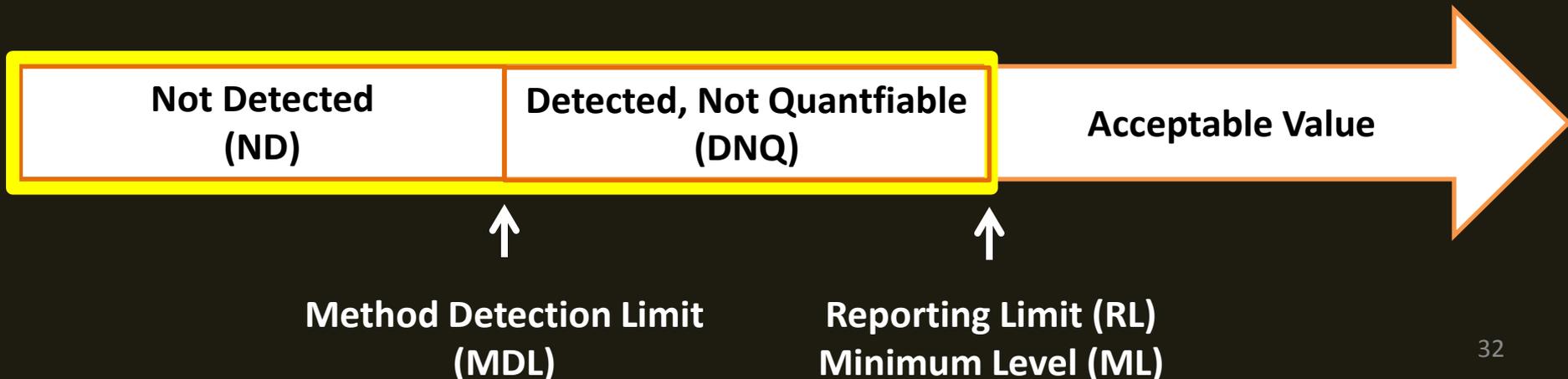
1. No significant violations for 4 consecutive inspections
2. SM-QSP / Group Monitoring Leader certifies BMPs are fully implemented and site conditions do not warrant monthly inspections
3. Submit reduction request to Regional Board for approval
4. Conduct at least one inspection per reporting cycle during storm event that produces runoff

Monitoring Reductions

Eliminate Storm Water Sample Constituent

A storm water sample constituent may be eliminated if:

1. Data from 4 samples per year for at least 2 consecutive years
2. All sample result values less than reporting limit / minimum level
3. Submit constituent elimination request to Regional Board



Monitoring Reductions

Storm Water Sample Frequency Reduction

The frequency of storm water sampling may be decreased if:

- 1. Less than Numeric Action Level (NAL) for 2 consecutive years**
- 2. Reliability of treatment systems certified**
- 3. Submit reduction request to Regional Board for approval**

No Exposure Certification

If no industrial activity is exposed to storm water, submit:

- **No Exposure Certification**
- **Analytical results of runoff from each discharge point of the facility for two storm events (Table 1A Numeric Action levels for Option 1 constituents)**

June 30th: Renew No Exposure Certification by June 30th of each year.

Notice of Termination

Complete Notice of Termination when:

- All industrial activities have ceased, and the facility no longer poses a threat to water quality
- No water flows from the facility to storm water systems or surface waters
- Change in ownership
- Change in location of facility
- Obtain individual permit coverage

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