AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

Metals Recycling, LLC
P.O. Box 19726
Johnston, RI 02919

is authorized to discharge from a facility located at

Metals Recycling, LLC
89 Celia Street
Johnston, RI 02919

to receiving waters named

Unnamed Tributary to the Woonasquatucket River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on _____.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supercedes the permit issued on June 17, 2009.

This permit consists of 20 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this day of , 2014.

DRAFT

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Angelo S. Liberti, P.E., Chief of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A.
   Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	--- GPD	--- GPD				1/Day	Calculated[1]
COD			--- mg/l		--- mg/l	1/Quarter**	Grab[2]
TSS			--- mg/l		--- mg/l	1/Quarter**	Grab[2]
pH			(6.5 SU)		(9.0 SU)	1/Quarter**	Grab[2]
Oil and Grease					15 mg/l	1/Quarter**	Grab[2]

**Samples must be obtained from a discharge which is the result of a representative storm event that occurs at least seventy-two (72) hours after the previously measurable storm event. A representative storm event should be within 50% of the average Rhode Island storm event, 0.7 inches in depth and 12 hours in duration, and shall be a minimum of 0.1 inches per twenty-four (24) hours in magnitude.

[1]Flow shall be calculated using the drainage area, runoff coefficient, and the amount of rainfall for each day. The day with the highest calculated flow for the reporting period shall be reported as the "Maximum Daily" flow. The average of all of the calculated daily flows shall be reported as the "Average Monthly" flow.

[2]The "Grab" value shall be obtained using a grab sample, consisting of an individual sample of at least 100 mL, collected during the discharge from a representative storm event as defined above.

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Values in parentheses () are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Discharge from the Storm Water Collection and Treatment System Located at Manhole MH-5T as identified in Metals Recycling, LLC's Stormwater Pollution Prevention Plan dated July 2012 on Figure 3 entitled "Stormwater Treatment System Plan").

A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

2. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Copper, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
Lead, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
Aluminum, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
Iron, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
Zinc, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
Mercury, Total			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1016			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1221			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1232			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1242			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1248			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1254			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]
PCB 1260			--- mg/l		--- mg/l	1/ Quarter**	Grab[1]

** Quarterly samples must be obtained from a discharge, which is the result of a representative storm event that occurs at least seventy-two (72) hours after the previously measurable storm event. A representative storm event should be within 50% of the average Rhode Island storm event, 0.7 inches in depth and 12 hours in duration, and shall be a minimum of 0.1 inches per twenty-four (24) hours in magnitude.

[1]The "Grab" value shall be obtained using a grab sample, consisting of an individual sample of at least 100 mL, collected during the discharge from a representative storm event as defined above.

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Discharge from the Storm Water Collection and Treatment System Located at Manhole MH-5T as identified in Metals Recycling, LLC's Stormwater Pollution Prevention Plan dated July 2012 on Figure 3 entitled "Stormwater Treatment System Plan").

3. (a) The pH of the effluent shall not be less than 6.5 nor greater than 9.0 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

   (b) The discharge shall not cause visible discoloration of the receiving waters.

   (c) The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

4. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

   (a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 ug/l);

      (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

   (b) That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) Five hundred micrograms per liter (500 ug/l);

      (2) One milligram per liter (1 mg/l) for antimony;

      (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

   (c) That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant, which was not reported in the permit application.

5. The permittee is only authorized to discharge storm water and allowable non-storm water discharges. Allowable non-storm water discharges under this permit are limited to the following: discharges from fire fighting activities; fire hydrant flushings; external building wash down that does not use detergents; lawn watering; uncontaminated ground water; springs; air conditioning condensate; potable waterline flushings; irrigation drainage; foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials have occurred; and incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but NOT intentional discharges from the cooling tower (e.g., "piped" cooling tower blow down or drains); uncontaminated utility vault dewatering; dechlorinated water line testing water; hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals. If

any of these allowable non-storm water discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan. Any other discharges are not authorized under this permit.

6. The discharge of contaminated groundwater is not authorized by this permit.

7. The permittee shall drain all fluids and remove all hazardous waste from vehicles prior to dismantling and/or further processing of the vehicles. All fluids and wastes shall be stored/disposed of in accordance with applicable State, Local, and Federal requirements.

8. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. INSPECTIONS AND MAINTENANCE

1. All required inspections and maintenance must be conducted as specified in the permittee's Stormwater Treatment System Operation and Maintenance Plan and SWPPP dated July 2012 or as amended and approved by the DEM. This includes inspection and maintenance of the following major Stormwater Treatment System components: Swirl Concentrators, Oil Water Separators, Pump Station, Aeration Tank, Aeration Blower, Sediment Forebay, and Bioretention Swale. The SWPPP must also identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

C. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. The permittee shall comply with all of the terms and conditions of the Stormwater Treatment System Operation and Maintenance Plan and SWPPP dated July 2012 or as amended and approved by the DEM.

2. The permittee shall promptly, and in no case later than thirty (30) calendar days, amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges (based upon exceedances of the effluent limitations in Part I.A, exceedances of benchmark concentrations in Part I.E, or the results of the inspections required in Part I.B of this permit).

3. All amendments to the SWPPP, structural and non-structural, shall be submitted to the Department of Environmental Management – Office of Water Resources, with the DMR for that reporting period. If the amendments will include changes to structural controls, the revised SWPPP must include a schedule for the implementation of the proposed structural modifications. The permittee shall promptly, and in no case later than thirty (30) calendar days from the date that the SWPPP is amended, implement any changes to non-structural pollution prevention measures. Proposed changes to structural storm water controls must be approved by the DEM prior to implementation. Upon DEM approval of the changes to the structural controls, the permittee shall implement the changes in accordance with the approved schedule.

4. Once the amendments have been reviewed, the permittee may be notified that the SWPPP does not meet the Departments minimum requirements. After such notification, the permittee shall make changes to the SWPPP and shall submit written certification that the requested changes have been made.

5. Unless otherwise provided by the Department, the permittee shall have thirty (30) days after notification of deficiencies to make the necessary changes to the SWPPP.

6. The SWPPP must:

   (a) identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the facility;

   (b) describe and ensure implementation of practices which the permittee will use to reduce the pollutants in storm water discharges from the facility; and

   (c) assure compliance with the terms and conditions of this permit

7. *Pollution Prevention Team* – The SWPPP must identify the staff individual(s) (by name or title) that comprise the facility's stormwater Pollution Prevention Team. The Pollution Prevention Team is responsible for assisting the facility/plant manager in developing, implementing, maintaining and revising the facility's SWPPP. Responsibilities of each staff individual on the team must be listed.

8. Site Description. The SWPPP must include the following:

   (a) Activities at Facility. Description of the nature of the industrial activities at the facility;

   (b) General Location Map. A topographic map showing the general location of the facility with enough detail to identify the location of the facility and the receiving waters within one mile of the facility;

   (c) A legible site map identifying the following:

      (1) directions of storm water flow (e.g., use arrows to show which ways storm water will flow);

      (2) delineation of impervious surfaces

      (3) locations of all existing structural BMPs to reduce pollutants in storm water runoff;

      (4) locations of all surface water bodies;

      (5) locations of all municipal separate storm sewers;

      (6) locations of potential pollutant sources and where significant materials are exposed to precipitation;

      (7) locations where major spills or leaks have occurred;

      (8) locations of the following activities where such activities are exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment, containment areas for turnings exposed to cutting fluids, fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, and liquid storage tanks, processing and storage areas, access roads, rail cars and tracks, the location of transfers of substances in bulk, and machinery;

      (9) locations of storm water outfalls and an approximate outline of the area draining to each outfall;

(10) location and description of non-storm water discharges;

(11) location and source of runoff from adjacent property containing significant quantities of pollutants of concern to the facility (an evaluation of how the quality of the storm water running onto the facility impacts the storm water discharges may be included).

(d) An estimate of the overall runoff coefficient.

9. *Receiving Waters and Wetlands* – The name of the nearest receiving water(s), including intermittent streams and the areal extent and description of wetland that may receive discharges from the facility.

10. *Summary of Potential Pollutant Sources* – The permittee must identify each separate area at the facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to, material handling equipment or activities; industrial machinery; storage, cleaning, fueling and maintenance of vehicles and equipment storage; and raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description must include:

    (a) Activities in Area. A list of the activities (e.g., material storage, loading, access areas, equipment fueling and cleaning, cutting steel beams);

    (b) Pollutants. A list of the associated pollutant(s) or pollutant parameter(s) (e.g., crankcase oil, iron, biochemical oxygen demand, pH, etc.) for each activity. The pollutant list must include all significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of five (5) years before being covered under this permit and the present;

    (c) Method of on-site storage or disposal;

    (d) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in the storm water discharge.

11. *Spills and Leaks* – The permittee must clearly identify areas where potential spills and leaks, which can contribute pollutants to storm water discharges, can occur, and their accompanying drainage points. For areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility to be covered under this permit, the permittee must provide a list of significant spills and leaks of toxic or hazardous pollutants that occurred during the five (5) year period prior to the date of submittal of the permit application. The list must be updated if significant spills or leaks occur in exposed areas of the facility once the permit is issued. Significant spills and leaks include, but are not limited to releases of oil or hazardous substances in excess of quantities that are reportable under CWA 311 (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Significant spills may also include releases of oil or hazardous substances that are not in excess of reporting requirements.

12. *Storm Water Controls*

(a) Description of Existing and Planned BMPs. Describe the type and location of existing non-structural and structural best management practices (BMPs) selected for each of the areas where industrial materials or activities are exposed to storm water. All the areas identified in Part I.C.10 should have BMP(s) identified for the area's discharges. For areas where BMPs are not currently in place, describe appropriate BMPs that the permittee will use to control pollutants in storm water discharges, the SWPPP must include a schedule for the implementation of all proposed BMPs. Selection of BMPs should take into consideration:

(1) the quantity and nature of the pollutants, and their potential to impact the water quality of receiving waters;

(2) opportunities to combine the dual purpose of water quality protection and local flood control benefits (including physical impacts of high flows on streams – e.g., bank erosion, impairment of aquatic habitat, etc.);

(3) opportunities to offset the impact of impervious areas of the facility on ground water recharge and base flows in local streams.

(b) BMP Types. The following types of structural, non-structural and other BMPs must be considered for implementation at the facility. Describe how each is, or will be, implemented. If the permittee determines that any of these BMPs are not appropriate for the facility, an explanation of why they are not appropriate must be included. The BMP examples listed below are not intended to be an exclusive list of BMPs that the permittee may use. The permittee is encouraged to keep abreast of new BMPs or new applications of existing BMPs to find the most cost effective means of permit compliance for the facility. If BMPs are being used or planned at the facility which are not listed here include descriptions of them in this section of the SWPPP.

(1) <u>Non-Structural BMPs</u>

Good Housekeeping: The permittee must keep all exposed areas of the facility in a clean, orderly manner where such exposed areas could contribute pollutants to storm water discharges. Common problem areas include: around trash containers, storage areas and loading docks. Measures must also include: a schedule for regular pickup and disposal of garbage and water materials; routine inspections for leaks and conditions of drums, tanks and containers.

Minimizing Exposure: Where practicable, industrial materials and activities should be protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, or runoff.

Preventative Maintenance: The permittee must have a preventative maintenance program which includes timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspecting, testing, maintaining and repairing facility equipment and systems to avoid breakdowns or failures that may result in discharges of pollutants to surface waters.

Spill Prevention and Response Procedures: The permittee must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum the permittee must implement a) procedures for plainly labeling containers (e.g., "Used Oil", "Spent Solvents", "Fertilizers and Pesticides", etc.)

that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur; b) preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling; c) procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the stormwater Pollution Prevention Team (see Part I.C.7); and d) procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil requires the activation of the facility's response plan, the permittee must notify the DEM and take appropriate action to stop or minimize a release of Hazardous Material posing an Imminent Hazard and/or any on-going spill of Hazardous Material at the time of discovery. Local requirements may necessitate reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available. Measures for cleaning up hazardous material spills or leaks must be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265.

Routine Facility Inspections: As part of the Comprehensive Site Compliance Evaluation required under Part I.D of this permit, the permittee must have qualified facility personnel inspect all areas of the facility where industrial materials or activities are exposed to storm water. The inspections must include an evaluation of existing storm water BMPs. The SWPPP must identify how often these inspections will be conducted. The permittee must correct any deficiencies in implementation of the SWPPP the permittee finds as soon as practicable, but not later than within 14 days of the inspection. The permittee must document in the SWPPP the results of the inspections and the corrective actions the permittee took in response to any deficiencies or opportunities for improvement that the permittee identifies.

Employee Training: The permittee must describe the storm water employee training program for the facility. The description should include the topics covered, such as spill response, good housekeeping and material management practices, and must identify periodic dates (e.g., every 6 months during the months of July and January) for such training. The permittee must provide employee training for all employees that work in areas where industrial materials or activities are exposed to storm water, and for employees that are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance people). The employee training should inform them of the components and goals of the SWPPP.

(2) Structural BMPs

Sediment and Erosion Control: The permittee must identify the areas at the facility which, due to topography, land disturbance (e.g., construction), or other factors, have a potential for significant soil erosion. The permittee must describe the structural, vegetative, and/or stabilization BMPs that the permittee will be implementing to limit erosion.

Management of Runoff: The permittee must describe the traditional stormwater management practices (permanent structural BMPs other than those which

control the generation or source(s) of pollutants that currently exist or that are planned for the facility. These types of BMPs typically are used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site. All BMPs that the permittee determines are reasonable and appropriate, or are required by a State or local authority; must be implemented and maintained. Factors to consider when the permittee is selecting appropriate BMPs should include: 1) the industrial materials and activities that are exposed to storm water, and the associated pollutant potential of those materials and activities; and 2) the beneficial and potential detrimental effects on surface water quality, ground water quality, receiving water base flow (dry weather stream flow), and physical integrity of receiving waters.

Structural measures should be placed on upland soils, avoiding wetlands and floodplains, if possible. Structural BMPs may require a separate permit under section 404 of the CWA before installation begins.

(3) Other Controls

No solid materials, including floatable debris, may be discharged to waters of the State, except as authorized by a permit issued under section 404 of the CWA.

Off-site tracking of raw, final, or waste materials or sediments, and the generation of dust must be minimized. Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas must be minimized. Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel if they are necessary to provide a non-erosive flow velocity from the structure to a watercourse.

(4) Additional Technology-Based Effluent Limits

Inbound Recyclable and Waste Material Control Program. Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to the facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).

Scrap and Waste Material Stockpiles and Storage (Outdoor). Minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes by instituting one or more of the following control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources

of residual fluids are stockpiled (e.g., automobile engine storage areas).

Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage). Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. The permittee must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage). Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off of all floor drains connected to the storm sewer system.

Scrap and Recyclable Waste Processing Areas. Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventative maintenance, etc.). Following are some control measure options: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventative maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.

Scrap Lead-Acid Battery Program. Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.

Spill Prevention and Response Procedures. (See also Part I.C.12(b)(1)) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic

reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

Supplier Notification Program. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

Waste Material Storage (Indoor). Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate RIPDES wastewater permit or industrial user permit under the pretreatment program.

Waste Material Storage (Outdoor). Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.

Trucks and Rail Car Waste Transfer Areas. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

Inbound Recyclable Material Control. Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.

Outdoor Storage. Minimize exposure of recyclables to precipitation and runoff. Used good housekeeping measures to prevent accumulation of particulate matter

and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment; (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes; and (f) store the equivalent of one day's volume of recyclable material indoors.

Indoor Storage and Material Processing. Minimizing the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

Vehicle and Equipment Maintenance. Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

13. *Maintenance* – All BMPs the permittee identifies in the SWPPP must be maintained in effective operating condition in accordance with the Stormwater Treatment System Operation and Maintenance Plan dated July 2012 or as amended and approved by the DEM. If site inspections required by Part I.B and Part I.D identify BMPs that are not operating effectively, maintenance must be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished within fourteen (14) calendar days. In the case of non-structural BMPs, the effectiveness of the BMP must be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

14. *Non-Storm Water Discharges*

(a) The SWPPP must include a certification that all discharges (i.e. outfalls) have been tested or evaluated for the presence of non-storm water. The certification must be signed in accordance with Part II.(k) of this permit, and include:

(1) the date of any testing and/or evaluation

(2) identification of potential significant sources of non-storm water at the site;

(3) a description of the results of any test and/or evaluation for the presence of non-storm water discharges;

(4) a description of the evaluation criteria or testing method used;

(5) a list of the outfalls or onsite drainage points that were observed during the test.

15. *Allowable Non-Storm Water Discharges*

(a) Certain sources of non-storm water are allowable under this permit (see Part I.A.5). In order

for these discharges to be allowed, the SWPPP must include:

(1) identification of each allowable non-storm water source;

(2) the location where it is likely to be discharged; and

(3) descriptions of appropriate BMPs for each source.

(b) Except for flows from fire fighting activities, the permittee must identify in the SWPPP all sources of allowable non-storm water that are discharged under the authority of this permit.

(c) If the permittee includes mist blown from cooling towers amongst the allowable non-storm water discharges, the permittee must specifically evaluate the potential for the discharges to be contaminated by chemicals used in the cooling tower and determine that the levels of such chemicals in the discharges would not cause or contribute to a violation of an applicable water quality standard after implementation of the BMPs the permittee has selected to control such discharges.

16. *Copy of Permit Requirements* – The permittee must include a copy of this permit in the SWPPP.

17. *Applicable State or Local Plans* – The SWPPP must be consistent (and updated as necessary to remain consistent) with applicable State and/or local storm water, waste disposal, sanitary sewer or septic system regulations to the extent these apply to the facility and are more stringent than the requirements of this permit.

D. COMPREHENSIVE SITE EVALUATION

1. *Frequency of Evaluations* – The permittee must conduct a comprehensive site compliance evaluation at least once a year. The inspections must be done by qualified personnel provided by the permittee. The qualified personnel the permittee uses may be either the facility's employees or outside consultants that the permittee has hired, provided they are knowledgeable and possess the skills to assess conditions at the facility that could impact storm water quality and assess the effectiveness of the BMPs the permittee has chosen to use to control the quality of the storm water discharges. If the permittee decides to conduct more frequent inspections, the SWPPP must specify the frequency of inspections.

2. *Scope of the Comprehensive Site Evaluation* – The inspections must include all areas where industrial materials or activities are exposed to storm water, as identified in Part I.C.10, and areas where spills and leaks have occurred within the past 5 years. Inspectors should look for: a) industrial materials, residue or trash on the ground that could contaminate or be washed away in storm water; b) leaks or spills from industrial equipment, drums, barrels, tanks or similar containers: c) offsite tracking of industrial materials or sediment where vehicles enter or exit the site; d) tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas and e) for evidence of, or the potential for, pollutants entering the drainage system. Results of both visual and any analytical monitoring done during the year must be taken into consideration during the evaluation. Storm water BMPs identified in the SWPPP must be observed to ensure that they are operating correctly. Where discharge locations are accessible, they must be inspected to see whether BMPs are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations must be inspected if possible.

3. *Follow-up Actions* – Based on the results of the Comprehensive Site Evaluation, the permittee must modify the SWPPP as necessary (e.g., show additional controls on map required by Part I.C.8.c; revise description of controls required by Part I.C.12 to include additional or modified BMPs designed to correct problems identified. The permittee must complete revisions to the SWPPP in accordance with Part I.C.2. If existing BMPs need to be modified or if additional BMPs are

necessary, implementation must be completed in accordance with Part I.C.3.

4. *Comprehensive Site Evaluation Report* – The permittee must insure a report summarizing the scope of the inspection, name(s) of personnel making the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWPPP is completed no more than thirty (30) days after the date of the inspection and retained as part of the SWPPP for at least five (5) years from the date of the report. Major observations should include: the location(s) of discharges of pollutants from the site; location(s) of BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection. The Comprehensive Site Evaluation Report must also include a summary of the results of the inspection required under Part I.B. The permittee must retain a record of actions taken in accordance with Part I.D.3 of this permit as part of the SWPPP for at least five (5) years from the date of the inspection report. The inspection reports must identify any incidents of non-compliance. Where an inspection report does not identify any incidents of non-compliance, the report must contain a certification that the facility is in compliance with the SWPPP and this permit. Both the inspection report and any reports of follow-up actions must be signed in accordance with Part II.(k) of this permit. The annual Comprehensive Site Evaluation Report must be submitted to the DEM at the following address by February 15th of the following year:

RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

5. *Credit As a Routine Facility Inspection* – Where the Comprehensive Site Evaluation schedules overlap with inspections required under Part I.B and I.C.12.b.1), the comprehensive site evaluation may also be used as one of the routine inspections.

E. BENCHMARK MONITORING

During each quarter, the permittee shall compare all sampling results to the benchmark monitoring concentrations listed below. The benchmark concentrations are pollutant levels that are to be used to evaluate the overall effectiveness of the SWPPP. Benchmark Monitoring concentrations may be subject to change by permit modification to be consistent with future revisions to EPA and/or State benchmarks:

Parameter	Benchmark Concentration (mg/l)
COD	120
TSS	100
pH	6.0 – 9.0 S.U.
Oil and Grease	15
Total Copper	0.0056
Total Lead	0.023
Total Aluminum	0.75
Total Iron	1.0
Total Zinc	0.05
Total Mercury	0.0014
PCB 1016	0.000494[1]
PCB 1221	0.10
PCB 1232	0.000387[1]
PCB 1242	0.000289[1]
PCB 1248	0.002544
PCB 1254	0.10
PCB 1260	0.000477

1. The minimum detection limit for this parameter is greater than the EPA benchmark value, therefore sampling results at which an exceedance determination will be based is the Minimum Detection Limit. These values may be reduced by permit modification as more sensitive test methods are approved by the EPA and the State.

Any quarterly exceedances of the benchmark concentrations shall trigger a reevaluation of the implementation of the existing SWPPP and facility operations to determine if there are possible problems with non-structural BMPs or maintenance that can be corrected. The SWPPP shall be promptly revised in response to these reevaluations and in no case later than thirty (30) calendar days following the receipt of monitoring results that exceed the benchmark concentrations. A report of the permittee's comparison of monitoring results with the benchmark concentrations shall be submitted with each DMR. If the permittee exceeds any of the benchmark concentrations during the monitoring period the report shall include a detailed description of the possible causes of the exceedances or of any significant increases in parameter concentrations, the dates and scopes of inspections, a summary of monitoring results and visual inspections, and any modifications made to the SWPPP to reduce pollutant levels.

Along with the results of the monitoring, the permittee must provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimate (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

On a yearly basis, the permittee shall calculate the annual average of all sampling data for each pollutant for the previous calendar year (January 1 – December 31). When calculating the annual

average concentrations, pollutant concentrations that were reported as less than the minimum detection limit from Part I.G shall be replaced with zeros. If the annual average exceeds the applicable benchmark concentration, then the permittee shall perform a detailed review of all storm water controls, BMPs, and maintenance schedules contained in the SWPPP and shall make reasonable amendments to reduce the pollutant levels in the discharge. These amendments shall be submitted to the Department of Environmental Management – Office of Water Resources with the annual Comprehensive Site Evaluation Report required under Part I.D. If the amendments will include changes to structural controls, the report must include a schedule for the implementation of the proposed structural modifications. Proposed changes to structural stormwater controls must be approved by the DEM prior to implementation. Upon DEM approval of the structural changes, the permittee shall implement them in accordance with the approved schedule.

F. SAMPLING WAIVER

If the permittee is unable to collect samples, due to adverse climactic conditions which create dangerous conditions for personnel or otherwise makes the collection of a sample impractical, the permittee may submit in lieu of sampling data a description of why samples could not be collected. Permittees are prohibited from exercising this waiver more than once during a two (2) year period.

G. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020). The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be documented and maintained onsite.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be maintained onsite. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the MDL shall be reported as zero in accordance with the DEM's DMR Instructions, provided that all appropriate EPA approved methods were followed.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", or zero. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	1.0
19B	dibenzo (a,h)anthracene *	2.0
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene *	2.0
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Aluminum, Total	20.0
Iron, Total	20.0

** No Rhode Island Department of Environmental Management (RIDEM) MDL

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

H. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous quarter shall be summarized and reported on a Discharge Monitoring Report (DMR) Form postmarked no later than the 15th day of the month following the completed reporting period. Quarterly reporting shall be as follows:

Quarter Testing to be Performed	Report Due No Later Than
January 1 – March 31	April 15
April 1 - June 30	July 15
July 1 – September 30	October 15
October 1 - December 31	January 15

Signed copies of these, and all other reports required herein, shall be submitted to:

RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO. **RI0023485**

NAME AND ADDRESS OF APPLICANT:

Metals Recycling, LLC
P.O. Box 19726
Johnston, RI 02919

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Metals Recycling, LLC
89 Celia Street
Johnston, RI 02919

RECEIVING WATER: **Unnamed Tributary to the Woonasquatucket River**

CLASSIFICATION: **B1**

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for re-issuance of a RIPDES Permit to discharge into the designated receiving water. A summary of monitoring data from the period beginning July 2009 thru December 2013 can be found in *Attachment A.*

II. Limitations and Conditions

The effluent limitations, monitoring requirements, and implementation schedule may be found in the draft permit.

III. Permit Basis and Explanation of Effluent Limitation Derivation

Metals Recycling, L.L.C. owns and operates a facility used for the recycling of scrap metal, which is located at 89 Celia Street, Johnston. Operations conducted at the facility include processing, separating, sorting, and stockpiling scrap metal and associated by-products. As part of these operations, automobiles are transported to the facility, any hazardous materials and automotive fluids are removed from the vehicles, the vehicles are shredded, and the shredded materials are sorted prior to being transported off-site for further processing. In accordance with Rule 32(b)(3)(I)(A) of the RIPDES Regulations, it has been determined that the facility is a significant contributor of pollutants and has, therefore, been required to obtain an individual RIPDES permit.

The permittee is only authorized to discharge storm water and allowable non-storm water discharges. Allowable non-storm water discharges under this permit are limited to the following: discharges from fire fighting activities; fire hydrant flushings; external building wash down that does

not use detergents, lawn watering; uncontaminated ground water; springs; air conditioning condensate; potable waterline flushings; irrigation drainage; foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials have occurred; and incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blow down or drains); uncontaminated utility vault dewatering; dechlorinated water line testing water; hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals. If any of these allowable non-storm water discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan. Any other discharges are not authorized under this permit.

Discharge Location

The discharges from this facility enter into an unnamed tributary to the Woonasquatucket River. The Woonasquatucket River and tributaries are designated as Water Body ID No. RI0002007R-10C from the Smithfield WWTF discharge point at Esmond Mill Drive to the CSO outfall at Glenbridge Avenue in Providence, Smithfield, North Providence, Providence and Johnston. The receiving water is designated as Class B1. Class B1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. These waters shall have good aesthetic value. Primary contact recreation activities may be impacted due to pathogens from approved wastewater discharges, however all Class B criteria must be met.

According to the 2012 303(d) List of Impaired Waters, multiple impairments have been identified for Water Body ID No. RI0002007R-10C. This water body is not supporting fish and wildlife habitat due to impairments to benthic-macroinvertebrate bioassessments, dioxin (including 2,3,7,8-TCDD), mercury, non-native aquatic plants, dissolved oxygen, and polychlorinated biphenyls. The water body is also not supporting fish consumption due to impairments related to Dioxin (including 2,3,7,8-TCDD), Mercury in Fish Tissue, and PCB in Fish Tissue. Primary and Secondary contact recreation is currently not supported due to impairments attributed to Fecal Coliform.

Stormwater Treatment System

Improvements were made at the site on September 2, 2005 which included the installation of a storm water collection system and a storm water treatment system using two (2) on-site oil/water separators (OWS-1 and OWS-2) and three (3) solids separation units (TSS-1, TSS-2, and TSS-03), designed to treat storm water runoff for suspended solids and oil and grease. During the development of the previous permit a review of Metals Recycling, LLC.'s benchmark monitoring results for the period covering September 15, 2005 thru September 26, 2008 revealed the fact that average discharge concentrations exceeded benchmark concentrations for the following pollutants: BOD, COD, Total Copper, Total Lead, Total Aluminum, Total Iron, Total Zinc, and PCB 1242. This data demonstrated the fact that since the installation of the storm water collection and treatment system installed in September of 2005, Metals Recycling, LLC. continued to have difficulties bringing the discharges from outfall 001A into compliance with the benchmark concentrations established in the permit issued on November 20, 2003. As a result, the DEM required Metals Recycling to conduct an engineering evaluation and propose a schedule for implementing changes to the structural storm water controls that would be capable of bringing the facility into compliance with the benchmark concentrations established in the June 17, 2009 permit.

Additional structural stormwater upgrades were approved by DEM and subsequently constructed and implemented in 2012. The purpose of the system upgrade was to reduce the concentrations of constituents in stormwater to the point where the facility is able to comply with benchmarks

established in the permit. The upgraded system was constructed to be operated downstream of the existing system (i.e. the influent to the 2012 treatment system additions is the effluent from the system constructed in 2005). The system has been designed to treat the water quality volume from the industrial operations area of the Site (1 inch over the impervious area, approximately 350,000 gallons) at a peak flow rate of 6,000 gallons per minute (gpm), equal to a rainfall rate of approximately 1 inch per hour. The primary components of the new system constructed in 2012 consist of a pump station and associated force main, an aeration tank with associated blower equipment, and a forebay and bioretention swale.

Since the 2012 upgrades, compliance monitoring is required to take place at Outfall 001A, a location that is representative of the final discharge from the Storm Water Collection and Treatment System located at Manhole MH-5T as identified in Metals Recycling, LLC's Stormwater Pollution Prevention Plan dated July 2012 on Figure 3 entitled "Stormwater Treatment System Plan". A copy of Figure 3 is provided in Attachment C. Results of the monitoring data since the 2012 upgrades and a comparison of this data to the benchmark monitoring concentrations is presented in the next section.

Permit Limit Development and Benchmark Monitoring Requirements

DEM's primary authority over this permit comes from the Environmental Protection Agency's (EPA's) delegation of the RIPDES program, in September 1984, under the Federal Clean Water Act. The requirements set fourth in this draft permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to Chapter 46-12, of the Rhode Island General Laws, as amended.

The permit requires that all fluids and hazardous wastes be removed from vehicles prior to dismantling and/or further processing. Additionally, this permit also requires that Metals Recycling comply with the latest Storm Water Pollution Prevention Plan (SWPPP) developed for the facility. The SWPPP includes, but is not limited to, a description of the pollution controls as well as maintenance activities necessary to properly control stormwater runoff. All required inspections and maintenance must also be conducted as specified in the site specific Stormwater Treatment System Operation and Maintenance Plan and SWPPP. This includes maintenance on the following Stormwater Treatment System components: Swirl Concentrators, Oil Water Separators, Pump Station, Aeration Tank, Aeration Blower, Sediment Forebay, and Bioretention Swale.

The pH limitations included in this permit are water quality based and are equivalent to the class specific criteria for pH in fresh water, as specified in Table 1.8.D(2) in the Rhode Island Water Quality Regulations.

The 15 mg/l daily maximum Oil and Grease limit was established based on Best Professional Judgement (BPJ) and is equivalent to the new source performance standard that the Environmental Protection Agency (EPA) has established for most industry groups. This standard represents the level of control achievable by the best available demonstrated control technology, process, operating method, or other alternative for the removal of oil and grease. This limit is also consistent with the American Petroleum Institute (API) oil/water separator guidelines and is consistent with the limits that DEM typically assigns to discharges of storm water that is treated through an oil/water separator.

In addition to the above-mentioned effluent limits, various effluent monitoring requirements have been specified for Outfall 001A. COD, TSS, pH, Total Aluminum, Total Copper, Total Iron, Total Lead, Total Zinc, PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260, and Oil and Grease monitoring requirements were developed to be consistent with the monitoring requirements established in the 2013 RIPDES Multi-Sector General Permit for Stormwater Discharge Associated with Industrial Activity (MSGP), for Subsector N1 - Scrap Recycling and Waste Recycling Facilities (SIC 5093).

Benchmark monitoring requirements have also been specified for Mercury and COD given the fact that the Woonasquatucket River in the vicinity of Metals Recycling LLC's discharge is listed as impaired for Mercury and Dissolved Oxygen. COD benchmark monitoring requirements have been specified in the permit in lieu of monitoring for Dissolved Oxygen. Benchmark monitoring for dioxin and fecal coliform have been excluded given the fact that Metals Recycling LLC.'s processes do not generate Fecal Coliform or Dioxin. All other parameters for which impairments exist were already included in the list of parameters for which benchmark monitoring is required. Any exceedances of the benchmark values shall trigger a review of the facility's SWPPP by the permittee and modification as necessary to reduce the pollutant concentrations in the discharge to levels below the benchmark concentrations.

According to the *April 2007 Rhode Island Department of Environmental Management Woonasquatucket River Fecal Coliform Bacteria and Dissolved Metals Total Maximum Daily Loads Report* a summary of mean hardness values in the Woonasquatucket river for segment RI00020007R-10C were 30.0 mg/l CaCO3 for dry weather and 31.5 mg/l CaCO3 for wet weather. Aquatic life criteria for many metals are a function of hardness. Hardness is defined as the concentration of calcium carbonate (CaCO3) in the water column and has the units of milligram per liter (mg/l). Freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can affect the toxicities of some metals. Increasing hardness has the effect of decreasing toxicity of certain metals to aquatic life. Consistent with the 2013 RIPDES MSGP, benchmark monitoring concentrations established for Subsector N1 - Scrap Recycling and Waste Recycling Facilities (SIC 5093) are hardness dependent for certain metals, namely Copper, Lead, and Zinc. For water hardness in the range of 25-50 mg/L which is the range applicable to the Woonasquatucket river in segment RI0020007R-10C the applicable benchmark monitoring concentrations for Copper, Lead, and Zinc are 0.0056 mg/L, 0.023 mg/L, and 0.05 mg/L respectively. These benchmark monitoring concentrations have been included in the permit and can be found in Part I.E.

Benchmark monitoring concentrations are consistent with the previous permit with the exception of the following parameters: Total Copper, Total Lead, Total Zinc, Total Mercury, PCB 1016, PCB 1232, and PCB 1242. The benchmark monitoring concentrations for each of these parameters have been reduced slightly from those established in the previous permit. The changes made are consistent with those established in the 2013 RIPDES MSGP. Similarly, benchmark monitoring for BOD_5 has been eliminated. The DEM has determined that COD monitoring will appropriately quantify any impacts that the discharge will have on the receiving water's Dissolved Oxygen. In addition the 2013 MSGP does not require BOD_5 monitoring for scrap recycling facilities. Therefore, elimination of the BOD_5 benchmark monitoring is consistent with the 2013 MSGP.

A review of Metals Recycling, LLC.'s quarterly effluent data was conducted for the 3rd and 4th quarters of 2012 and the 1st-4th quarters of 2013. The effluent results for these quarters reflect the stormwater treatment system performance after the 2012 treatment system upgrades. The effluent data review involved a comparison of the effluent results for each parameter to the new benchmark concentrations established in this permit. An exceedance of benchmark concentrations only occurred in one out of six quarters for Total Iron and COD; in two out of six quarters for Total Copper and Total Lead; and in three out of six quarters for Total Zinc. It is important to note that the sample results reported for the 2nd quarter of 2013 did not reflect treatment by the upgraded 2012 stormwater treatment system due to pump failure.

If the sampling results for this quarter are removed, benchmark concentrations would only have been exceeded in one out of six quarters for COD, Total Copper, and Total Lead; and two out of six quarters for Total Zinc. A summary of this data can be found in *Attachment B* of this permit. Based on the improved performance of the stormwater treatment system in achieving benchmark concentrations a mandatory requirement to evaluate additional structural treatment system modifications has not been included in this permit. However, any ongoing exceedances of the

benchmark concentrations established in this permit shall trigger a review of the facility's SWPPP by the permittee and modification as necessary to reduce the pollutant concentrations in the discharge to levels below the benchmark concentrations.

The Clean Water Act requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges. Both technology-based and water quality-based effluent limitations are implemented through NPDES permits. The technology-based conditions listed in Part I.C.12 (b)(4) of the permit are based on and consistent with the 2013 RIPDES MSGP. The technology-based limits included in this section of the permit consist of control measures which can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices) or structural or installed devices to prevent or reduce water pollution. In this permit, the permittee is required to select, design, install, and implement site-specific control measures to meet these technology-based limits.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of requirements common to all stormwater permits.

Since all of the limitations and conditions in the permit reduce the quantity of pollutants discharged, when compared to historic levels, the DEM has determined that the permit is consistent with the State's antidegradation and antibacksliding requirements.

IV. DEM Contact

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays, from:

Brian D. Lafaille, P.E.
Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext. 7731

11/7/14
Date

Joseph B. Haberek, PE
Principal Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

Attachment A

Discharge Monitoring Report Data Summary
July 2009 thru December 2013

METALS RECYCLING, LLC

DMR Data Summary 2/20/14

*** NOT ICIS CERTIFIED***

001A

Aluminum, total [as Al] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	2722.3529	2722.3529
Minimum	104	104
Maximum	13000	13000
Data Count	17	17

BOD, 5-day, 20 deg. C Location= 1

	MO AVG mg/L	DAILY MX mg/L
Mean	53	53
Minimum		
Maximum	210	210
Data Count	17	17

Chemical Oxygen Demand [COD] L

	MO AVG mg/L	DAILY MX mg/L
Mean	189.4706	189.4706
Minimum	10	10
Maximum	790	790
Data Count	17	17

Copper, total [as Cu] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	132.2353	132.2353
Minimum		
Maximum	651	651
Data Count	17	17

Flow, in conduit or thru treatment pl

	MO AVG gal/d	DAILY MX gal/d
Mean	40685.1765	618722.4706
Minimum	20437	348463
Maximum	69230	950698
Data Count	17	17

Iron, total [as Fe] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	10935.2941	10935.2941
Minimum	250	250
Maximum	49000	49000
Data Count	17	17

Lead, total [as Pb] Location= 1

METALS RECYCLING, LLC

DMR Data Summary 2/20/14

	MO AVG ug/L	DAILY MX ug/L
Mean	335.4706	335.4706
Minimum		
Maximum	1700	1700
Data Count	17	17

Mercury, total [as Hg] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	1.0824	1.0824
Minimum		
Maximum	7	7
Data Count	17	17

Oil & Grease Location= 1

	DAILY MX mg/L
Mean	14.7176
Minimum	
Maximum	90
Data Count	17

PCB-1016 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	.3135	.3135
Minimum		
Maximum	1.25	1.25
Data Count	17	17

PCB-1221 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	.3135	.3135
Minimum		
Maximum	1.25	1.25
Data Count	17	17

PCB-1232 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	.3135	.3135
Minimum		
Maximum	1.25	1.25
Data Count	17	17

PCB-1242 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	2.0349	1.8114
Minimum		
Maximum	12.9	12.9
Data Count	17	17

PCB-1248 Location= 1

	MO AVG ug/L	DAILY MX ug/L

METALS RECYCLING, LLC

DMR Data Summary 2/20/14

	MO AVG ug/L	DAILY MX ug/L
Mean	.3135	.3135
Minimum		
Maximum	1.25	1.25
Data Count	17	17

PCB-1254 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	.5042	.5042
Minimum		
Maximum	2.74	2.74
Data Count	17	17

PCB-1260 Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	.3112	.3112
Minimum		
Maximum	1.25	1.25
Data Count	17	17

pH Location= 1

	MINIMUM SU	MAXIMUM SU
Mean	6.8165	6.8165
Minimum	6.23	6.23
Maximum	7.39	7.39
Data Count	17	17

Solids, total suspended Location= 1

	MO AVG mg/L	DAILY MX mg/L
Mean	152.0176	152.0176
Minimum	5	5
Maximum	840	840
Data Count	17	17

Zinc, total [as Zn] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	1700.7647	1700.7647
Minimum	38	38
Maximum	8750	8750
Data Count	17	17

Attachment B

2012 and 2013 Stormwater Analytical Results

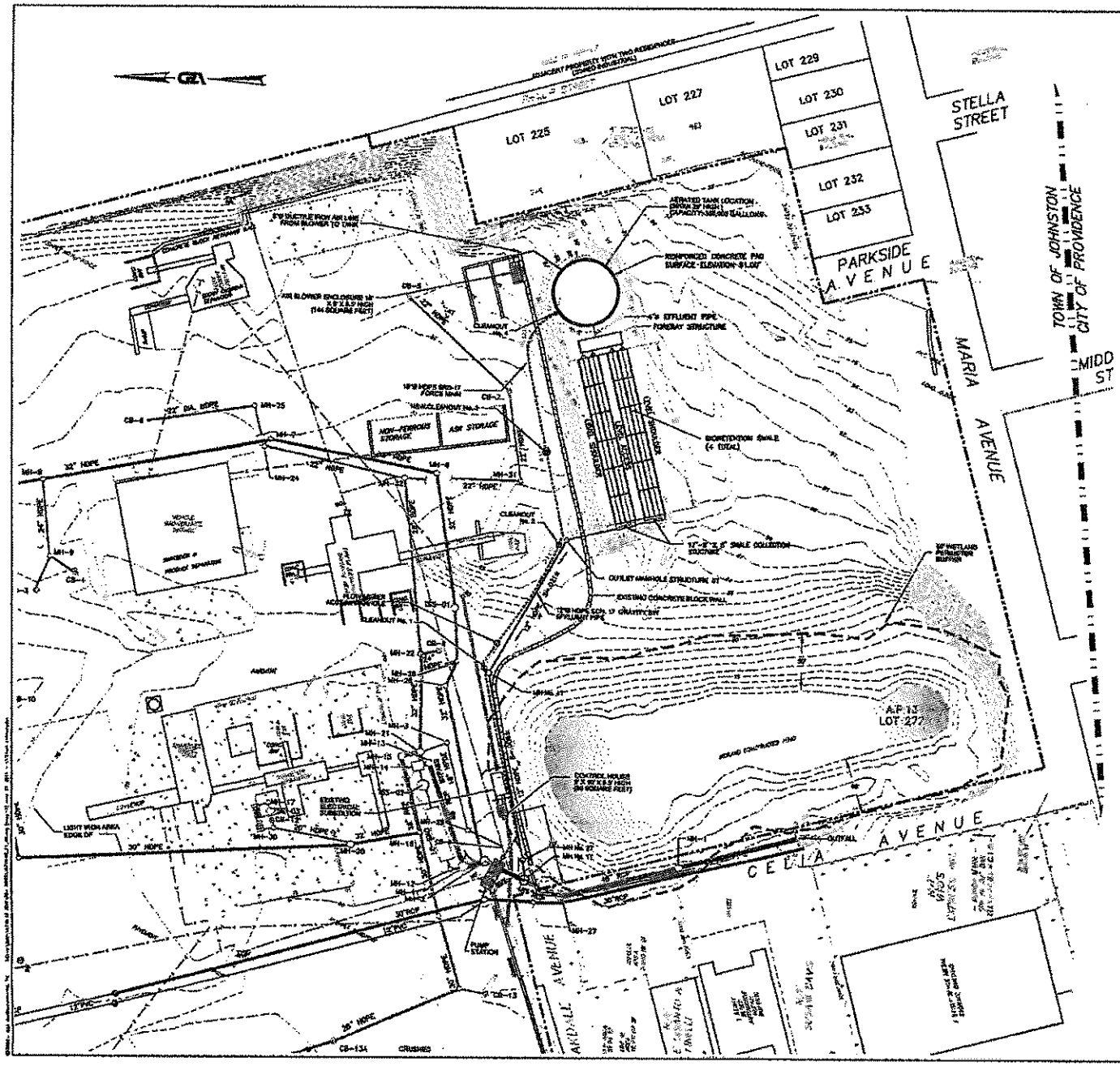
2012 and 2013 Stormwater Analytical Results
Post 2012 Stormwater Treatment System Upgrades
Metals Recycling, LLC. - Johnston, RI

Parameter	2009 Benchmark Concentration	2014 Benchmark Concentration	RIPDES Permit Discharge Limit	Q3 - 2012 9/19/2012	Q4 - 2012 11/14/2012	Q1 -2013 3/31/2013	Q2-2013 6/28/2013	Q3-2013 9/13/2013	Q4-2013 11/19/2013
BOD	30	--	--	0	0	**60**	11	0	17
COD	120	120	--	28	53	**142**	71	53	61
TSS	100	100	--	12	0	0	46	6	0
pH	6.0 -9.0	6.0-9.0	6.5-9.0	6.82	7.39	6.97	6.27	7.11	6.63
Oil and Grease	15	15	15	0	0	0	0	0	0
Total Copper	0.0636	0.0056	--	0	0	0	0.031	0.029	0
Total Lead	0.0816	0.023	--	0	0	0	0.057	0.024	0
Total Aluminum	0.75	0.75	--	0.482	0.127	0.104	0.623	0.201	0.079
Total Iron	1	1	--	0.81	0.25	0.32	**4.29**	0.79	0.295
Total Zinc	0.117	0.05	--	0.064	0	0.038	**0.502**	0.078	0.043
Total Mercury	0.0024	0.0014	--	0	0	0	0	0	0
PCB 1016	0.000494	0.000494	--	0	0	0	0	0	0
PCB 1221	0.1	0.1	--	0	0	0	0	0	0
PCB 1232	0.000387	0.000387	--	0	0	0	0	0	0
PCB 1242	0.000289	0.000289	--	0	0	0.0002	0	0.00021	0
PCB 1248	0.002544	0.002544	--	0	0	0	0	0	0
PCB 1254	0.1	0.1	--	0	0	0	0	0	0
PCB 1260	0.000477	0.000477	--	0	0	0	0	0	0

1) Benchmark concentration adjusted to the minimum detection limit cited for analyte in the RIPDES Permit.
2) All results in milligrams per liter except pH which is standard units (S.U.).
3) All stormwater samples were taken after stormwater treatment. All samples were collected after the recently constructed stormwater treatment system upgrades were in operation. The Q2-2013 sample was collected after subsurface pretreatment but does not reflect treatment system upgrades due to pump failure.
4) **Bold** indicates exceedance of 2009 Benchmark Concentration.
5) Grey highlighed cells indicate exceedance of 2014 Benchmark Concentration.
6) Data reported as less than the minimum detection limit from Part I.F of the RIPDES Permit replaced with zeroes.
7) Data listed in this attachment was provided to the DEM by Metals Recycling, LLC. in the 2012 and 2013 Annual Comprehensive Site Evaluation Reports.

Attachment C

Metals Recycling, LLC. Stormwater Treatment System Plan



LEGEND

- EXISTING WATER GATE VALVE
- EXISTING FIRE HYDRANT
- EXISTING FIRE MAIN
- EXISTING WATER MAIN
- EXISTING GAS GATE
- EXISTING UTILITY POLE
- EXISTING ELECTRIC MANHOLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING CATCH BASIN
- EXISTING INDUSTRIAL STORM DRAIN LINE
- EXISTING NON-INDUSTRIAL STORM DRAIN LINE
- EXISTING CONTOURS
- UNDERGROUND ELECTRICAL CONDUIT
- ELECTRICAL DUCTBANK
- PROPERTY OUTLINE
- CONCRETE APRON/PAD
- SOLIDS SEPARATION UNIT
- OIL / WATER SEPARATOR
- 16"ø HDPE STORM WATER FORCE MAIN
- CLEANOUT TO GRADE (FLANGED HDPE)
- GRAVITY 12"ø HDPE STORM DRAIN LINE
- 50' WETLAND PERIMETER BUFFER
- CONCRETE BLOCK WALL

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM PLANS PROVIDED BY RESOURCE CONTROLS; ENTITLED: "EXTENDED SURVEY AND STORM DRAIN PIPING PLAN", DATED: MAY 9, 2005; ORIGINAL SCALE: 1"=50'; DRAWING NUMBER: 7 AND TOPOGRAPHIC SURVEY BY DOUGLAS DESIGN GROUP LAND SURVEYORS ENTITLED: TOPOGRAPHICAL SURVEY OF LAND PREPARED FOR METALS RECYCLING, LLC, DATED MAY-JUNE, 2010, ORIGINAL SCALE 1"=50' AND CLASS 1 SURVEY PLAN FROM DOUGLAS DESIGN GROUP LAND SURVEYORS ENTITLED "PROPERTY LINE SURVEY PREPARED FOR METALS RECYCLING, LLC", DATED MARCH 28, 2011, ORIGINAL SCALE 1"=60.
2. LOCATION OF EXISTING STORMWATER CONVEYANCE SYSTEM IS BASED UPON DESIGN DRAWINGS AND FIELD MEASUREMENTS.
3. EXISTING UTILITIES ARE BASED UPON FIELD OBSERVATIONS AND PREVIOUS PLAN AND LOCATIONS ARE APPROXIMATE.

1 INCH = 40 FEET

METALS RECYCLING, LLC
STORM WATER
POLLUTION PREVENTION PLAN
89 CELIA STREET, JOHNSTON, RHODE ISLAND

STORM WATER TREATMENT SYSTEM PLAN

DRAWN BY: RMP	DESIGN BY: TMG	DRAWING NO.	FIGURE
REVIEWED BY: RAC	APPROVED BY: CRB	SCALE: 1"=40 FEET	3
DATE: JUNE 2014	PROJECT NO. 12119-03	REVISION NO.	