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, the

Rhode Island Air National Guard

is authorized to discharge from a facility located at

Quonset State Airport
2 Hercules Drive
North Kingstown, RI 02825

to receiving waters named

Frys Pond

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 supersedes the permit issued on September 30, 2009.

This permit consists of 22 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this day of 2015.

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 of this permit and lasting through the DEM approved date to install Outfall 100, not to exceed July 1, 2016, as required in Part I.C.2.a.(1), the permittee is authorized to discharge from Outfall serial number 001. 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
Flow		--- MGD				Quarterly	Estimate
Oil & Grease					15 mg/l	1/Quarter	Grab[1]
TSS					20 mg/l	1/Quarter	Grab[1]

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

[1] Wet weather samples must be collected during the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001 (storm water from the RIANG 143rd Airlift Wing base storm water collection system and off-site storm water inputs that enter this system, after treatment by the 22,500 gallon oil/water separator. The sampling location must be at the final discharge point from the 60 inch storm drain located in a concrete headwall into Frys Pond).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the DEM approved date to install Outfall 100, not to exceed July 1, 2016, as required in Part I.C.2.a.(2) and lasting through permit expiration, the permittee is authorized to discharge from Outfall serial number 100A. 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
Flow		--- MGD				Continuous	Continuous[1]
Oil & Grease					15 mg/l	1/Quarter	Grab[2]
TSS					20 mg/l	1/Quarter	Grab[2]
Benzene					--- ug/l	1/Quarter	Grab[2]
Toluene					--- ug/l	1/Quarter	Grab[2]
Ethylbenzene					--- ug/l	1/Quarter	Grab[2]
Total Xylenes					--- ug/l	1/Quarter	Grab[2]
Ethanol					--- ug/l	1/Quarter	Grab[2,3]
Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene					--- ug/l	1/Quarter	Grab[2]
Acenaphthylene					--- ug/l	1/Quarter	Grab[2]
Anthracene					--- ug/l	1/Quarter	Grab[2]
Benzo (a) anthracene					--- ug/l	1/Quarter	Grab[2]
Benzo (a) pyrene					--- ug/l	1/Quarter	Grab[2]
Benzo (b) fluoranthene					--- ug/l	1/Quarter	Grab[2]
Benzo (ghi) perylene					--- ug/l	1/Quarter	Grab[2]
Benzo (k) fluoranthene					--- ug/l	1/Quarter	Grab[2]

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the DEM approved date to install Outfall 100, not to exceed July 16, 2016, as required in Part I.C.2.a.(2) and lasting through permit expiration, the permittee is authorized to discharge from Outfall serial number 100A. 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
Chrysene					--- ug/l	1/Quarter	Grab[2]
Dibenzo (a,h) anthracene					--- ug/l	1/Quarter	Grab[2]
Fluoranthene					--- ug/l	1/Quarter	Grab[2]
Fluorene					--- ug/l	1/Quarter	Grab[2]
Indeno (1,2,3-cd) pyrene					--- ug/l	1/Quarter	Grab[2]
Naphthalene					--- ug/l	1/Quarter	Grab[2]
Phenanthrene					--- ug/l	1/Quarter	Grab[2]
Pyrene					--- ug/l	1/Quarter	Grab[2]

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

[1] Flow shall be determined by the use of a continuous flow monitor.

[2] One (1) sample shall be taken during wet weather. Wet weather samples must be collected during the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

[3] Ethanol shall be analyzed using EPA method 1671.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 100 (Storm water from the Hercules Drive drainage area and effluent from the 8,000 gallon oil/water separator treating storm water from the Petroleum based fuels, oil or lubricants (POL) Facility yard area/tanker truck parking area. The sampling location must be immediately downstream from the oil/water separator following the drainage manhole located within the 30 inch RCP storm drainage line, but prior to commingling with off-site storm water inputs).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the DEM approved date to install Outfall 100, not to exceed July 1, 2016, as required in Part I.C.2.a.(2) and lasting through permit expiration, the permittee is authorized to discharge from Outfall serial number 100B. 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
Flow		--- MGD				Continuous	Continuous[1]
Oil & Grease					15 mg/l	1/Quarter	Grab[2]
TSS					20 mg/l	1/Quarter	Grab[2]
Benzene					--- ug/l	1/Quarter	Grab[2]
Toluene					--- ug/l	1/Quarter	Grab[2]
Ethylbenzene					--- ug/l	1/Quarter	Grab[2]
Total Xylenes					--- ug/l	1/Quarter	Grab[2]
Ethanol					--- ug/l	1/Quarter	Grab[2,3]
Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene					--- ug/l	1/Quarter	Grab[2]
Acenaphthylene					--- ug/l	1/Quarter	Grab[2]
Anthracene					--- ug/l	1/Quarter	Grab[2]
Benzo (a) anthracene					--- ug/l	1/Quarter	Grab[2]
Benzo (a) pyrene					--- ug/l	1/Quarter	Grab[2]
Benzo (b) fluoranthene					--- ug/l	1/Quarter	Grab[2]
Benzo (ghi) perylene					--- ug/l	1/Quarter	Grab[2]
Benzo (k) fluoranthene					--- ug/l	1/Quarter	Grab[2]

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the DEM approved date to install Outfall 100, not to exceed July 1, 2016, as required in Part I.C.2.a.(2) and lasting through permit expiration, the permittee is authorized to discharge from Outfall serial number 100B. 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
Chrysene					--- ug/l	1/Quarter	Grab[2]
Dibenzo (a,h) anthracene					--- ug/l	1/Quarter	Grab[2]
Fluoranthene					--- ug/l	1/Quarter	Grab[2]
Fluorene					--- ug/l	1/Quarter	Grab[2]
Indeno (1,2,3-cd) pyrene					--- ug/l	1/Quarter	Grab[2]
Naphthalene					--- ug/l	1/Quarter	Grab[2]
Phenanthrene					--- ug/l	1/Quarter	Grab[2]
Pyrene					--- ug/l	1/Quarter	Grab[2]

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

[1] Flow shall be determined by the use of a continuous flow monitor.

[2] One (1) sample shall be taken during dry weather. Dry weather samples must be collected during the controlled release of storm water within the Petroleum-based fuels, oil or lubricants (POL) Facility secondary containment area(s) with proper allowances for hydraulic detention time (time for flow to travel from the oil/water separator to the sampling location).

[3] Ethanol shall be analyzed using EPA method 1671.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 100 (storm water from the POL Facility secondary containment area(s) after treatment by the 8,000 gallon oil/water separator. The sampling location must be immediately downstream from the oil/water separator following the drainage manhole located within the 30 inch RCP storm drainage line, but prior to commingling with off-site storm water inputs).

4. a. The pH of the effluent shall not be less than 6.5 nor greater than 9.0 standard units, unless these values are exceeded due to natural causes.

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

   c. The discharge shall not cause odors in the receiving water to such a degree as to create a nuisance or interfere with the existing or designated uses.

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

   e. The discharge shall not cause stream bank erosion and/or any soil erosion and sedimentation.

5. The permittee shall not add chemicals (including but not limited to disinfecting agents, detergents, emulsifiers, and "bioremedial agents including microbes") to the collection and treatment system without prior approval from DEM.

6. The permittee shall not discharge any sludge and/or bottom deposits from any storage tank, basin and/or diked area to the receiving water. Examples of storage tanks and/or basins include, but are not limited to: catch basins, stilling basins, oil/water separators, observation basins, petroleum product storage tanks, storage tanks collecting spills, and tank truck loading rack sumps.

7. This permit does not authorize discharges to the separate storm sewer system or to waters of the State from floor drains and trench drains located inside of buildings and/or hangars.

8. The permit does not authorize discharges to the separate storm sewer system or to waters of the State from vehicle, aircraft, or equipment washing activities, except for clear water rinses of C-130 aircraft as documented in the facility's Storm Water Pollution Prevention Plan (SWPPP) required in Part I.C. and as an allowable non-storm water discharge in Part I.A.13.

9. This permit does not authorize the discharge of sanitary wastewater to the separate storm sewer system or to waters of the State.

10. The discharge of contaminated groundwater, including contaminated groundwater from infiltration/inflow, into the storm water collection system or into any oil/water separator is prohibited.

11. There shall be no discharge of tank bottom draw-off water (water which separates from product during storage and settles to the tank bottom) to the separate storm sewer system or to waters of the State.

12. There shall be no discharge of tank and/or piping hydrostatic-test water, and tank and/or pipe cleaning residual/debris associated with hydrostatic-testing procedures to the separate storm sewer system or to waters of the State.

13. Discharges from rubber removal practices and dry weather discharges of deicing/anti-icing chemicals are not authorized by this permit. Dry weather discharges are those discharges generated by processes other than storm water runoff, snowmelt runoff, and surface runoff and drainage. Discharges of process wastewater or spills in snowmelt runoff are not authorized by this permit.

14. There shall be no discharge of fire protection foam, either in concentrate form or as foam dilute with water, not associated with firefighting activities to the separate storm sewer

system or to waters of the State.

15. Unless identified by the permittee or the DEM as significant sources of pollutants to waters of the United States, the following non-storm water discharges are authorized under this permit to enter the storm water drainage system: discharges from fire fighting activities; fire hydrant flushings; external building washdown that do not use detergents; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; clear water rinses of C-130 aircraft; and 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. If any of these 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 (SWPPP) required in Part I.C.

16. 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.

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

B. OPERATION AND MAINTENANCE

1. All surface runoff from process or work areas at the facility shall be contained and diverted to the oil/water separator. Process or work areas are defined for the purpose of this permit as all of those areas subject to spills and leaks of raw materials or products (i.e., secondary containment areas, fueling areas, aircraft parking apron, loading or unloading areas, yard areas, etc.).

2. The release of runoff from any secondary containment area or holding basin shall be controlled so that this discharge alone or in combination with any other sources of wastewater does not exceed the optimum design flow rate for the oil water separator or cause violations of the effluent limitations specified in this permit.

3. All storm water accumulated in the secondary containment area(s) shall be discharged to the oil/water separator no sooner than twenty-four (24) hours after completion of the most recent storm event and only after first determining that the accumulated water is free of product or sheen. If a sheen is detected by visual observations, the area will be covered with oil absorbent blankets to collect petroleum product. After the sheen has been absorbed and the absorbent blankets have been removed, the draining process will begin. If the amount of petroleum product is such that professional clean-up action is required, then all the liquid from the containment area(s) shall be removed by a Rhode Island-licensed hazardous waste hauler and properly disposed of off-site. Any discharges of accumulated storm water shall not cause an exceedance of any permit limits.

4. The storm water collection and treatment system shall be operated and maintained in order to provide optimal treatment of the storm water prior to discharge to the receiving water.

5. The SWPPP in Part I.C. shall specifically address the adequacy of containment of leaks and spills in storage areas (from Drums, Additive Tanks, Petroleum Product Tanks, etc.), truck loading area(s), and fueling area(s). Adequate containment must exist at these locations so as to prevent untreated discharges from reaching any surface water.

6. A schedule for routinely monitoring and cleaning all oil/water separators for both sludge and oil layers shall be specified in the SWPPP. In addition, the SWPPP shall identify procedures for insuring compliance with the permit during any cleaning or maintenance periods.

7. The permittee shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1978 (40 U.S.C. 6901 et seq.), or amendments thereto.

C. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained and implemented by the permittee. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWPPP shall describe and ensure the implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

2. In order to establish a representative sampling point to comply with the monitoring

requirements in Part I.A.2 and Part I.A.3 of this permit, RIANG shall submit the following:

a. Within thirty (30) days of the effective date of this permit, RIANG shall submit a scope of work and proposed schedule, not to exceed July 1, 2016, for the design, permitting (if necessary), and construction of a representative sampling/monitoring point (to be defined as Outfall 100) located downstream from the 8,000 gallon oil/water separator associated with the Petroleum-based fuels, oil or lubricants (POL) Facility and the Hercules Drive storm water drainage area. The scope of work and proposed schedule must include an evaluation of the storm water collection system downstream of the vehicle maintenance/refueling facility (Building 3) and POL Facility to determine a representative sampling point not affected by off-site storm water inputs. The scope of work and schedule will be subject to DEM review, modification, and approval. RIANG must comply with the below effluent limitations and monitoring requirements prior to and following the construction of a representative sampling point:

(1) From the effective date of the permit until the DEM approved date to install Outfall 100, not to exceed July 1, 2016, the permittee shall comply with the effluent limitations and monitoring requirements for Outfall 001 contained in Part I.A.1. of the permit;

(2) From the DEM approved date to install Outfall 100, not to exceed July 1, 2016, and lasting through permit expiration, the permittee shall comply with the effluent limitations and monitoring requirements for Outfall 100 contained in Parts I.A.2. (wet weather sampling requirements) and I.A.3. (dry weather sampling requirements) of the permit.

b. One (1) year following the DEM approved date to install Outfall 100, RIANG shall submit an amended SWPPP to the DEM that includes the addition of the representative sampling/monitoring point (to be defined as Outfall 100), sampling protocols for wet and dry weather sampling events, and updated site plans identifying the location of Outfall 100.

3. The SWPPP shall be signed by the permittee in accordance with RIPDES Rule 12 and retained on-site. The SWPPP shall be made available upon request by the DEM.

4. If the SWPPP is reviewed by the DEM the permittee may be notified at any time that the SWPPP does not meet one or more of the minimum requirements of this part. After such notification from the DEM, the permittee shall make changes to the SWPPP and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes.

5. The permittee shall immediately amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect of 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 storm water discharges associated with industrial activity. Changes must be noted and then submitted to DEM within fourteen (14) days. Amendments to the SWPPP may be reviewed by DEM in the same manner as Part I.C.4. of this permit.

6. The SWPPP shall include, at a minimum, the following items:

a. Description of Potential Pollutant Sources. The SWPPP must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of

pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. Each plan shall include:

(1) A site map indicating: a delineation of the drainage area of each storm water outfall, the direction of storm water flow (e.g., use arrows to show which ways storm water will flow), locations of storm water outfalls, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, the location and description of non-storm water discharges, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: aircraft and runway deicing operations, aircraft apron deicing pad, deicing fluid storage, processing, and handling areas, fueling stations, aircraft/vehicle/equipment maintenance and/or cleaning areas, aircraft clear water rinse/engine compressor wash areas, aircraft/vehicle/equipment storage areas, fire suppression foam testing areas, material handling areas, material storage areas, process areas, and waste disposal areas;

(2) A topographic map extending one-quarter of a mile beyond the property boundaries of the facility;

(3) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;

(4) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water between the time of three (3) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of three (3) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;

(5) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three (3) years prior to the effective date of this permit to the present;

(6) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under RIPDES Rule 11.02(a)(14)(iii)-(v) or 40 CFR 122.21(g)(iii)-(v);

(7) 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 storm water associated with industrial activity;

(8) A summary of existing sampling data describing pollutants in storm water discharges from the facility;

b. Storm Water Management Controls. The permittee must develop a description of storm water management controls appropriate for the facility and implement such

controls. The appropriateness for implementing controls listed in the SWPPP must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

(1) *Pollution Prevention Team.* The SWPPP must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the SWPPP and assisting the plant manager in its implementation, maintenance, and revision. The SWPPP must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's SWPPP.

(2) *Risk Identification and Assessment/Material Inventory.* The SWPPP must assess the potential of various sources which contribute pollutants to storm water discharge associated with the industrial activity. The SWPPP must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants. Also, include in the inventory of exposed materials a description of the potential pollutant sources from the following activities: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations; and fire suppression foam testing operations. If the permittee uses deicing chemicals, the permittee must maintain a record of the monthly quantities used.

(3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.

(4) *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.

(5) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. If applicable, the following areas must be specifically addressed:

i. Aircraft, Vehicle, and Equipment Storage Areas: The storage of aircraft, vehicles and equipment with actual or potential fluid leaks must be confined to designated areas (delineated on the site map). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from these areas. The facility shall consider the use of drip pans under aircraft/vehicles/equipment, indoor storage of the aircraft/vehicles/equipment, installation of berming and diking of this area, use of absorbents, roofing or covering storage areas, cleaning pavement surface to remove oil and grease, or other equivalent methods.

ii. Fueling Areas: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from fueling areas. The facility shall consider berming the fueling area(s), using spill and overflow protection and cleanup equipment, minimizing run-on/runoff of storm water to the fueling area(s) by way of storm water drains, using dry cleanup methods, collecting the storm water runoff and providing treatment or recycling, or other equivalent measures.

iii. Material Storage Areas: Storage units of all materials (e.g., used oil, used oil filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids) must be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil", "spent solvents", etc.). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from such storage areas. The facility shall consider indoor storage of the materials, storing waste materials in a centralized location, installation of berming and diking of the area, minimizing run-on/runoff of storm water to the areas, using dry cleanup methods, collecting the storm water runoff and providing treatment, or other equivalent methods.

iv. Aircraft, Vehicle, and Equipment Cleaning Areas: The SWPPP must describe measures that prevent the discharge of aircraft/vehicle/equipment wash waters, including tank-cleaning operations, and engine compressor washes of C-130 aircraft. The facility shall consider performing all cleaning operations indoors, covering the cleaning operation, ensuring that all washwaters drain to the intended collection system, collecting the storm water runoff from the cleaning area and providing treatment or recycling, or other equivalent measures. These discharges are not authorized by this permit, except for the clear water rinses of C-130 aircraft as described in Part I.A.15.

v. Aircraft, Vehicle, and Equipment Maintenance Areas: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for aircraft/vehicle/equipment maintenance (including the maintenance conducted on the aircraft in dedicated hangars). The facility shall consider performing all maintenance activities indoors, using drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting wet cleanup practices where the practices would result in the discharge of pollutants to storm water drainage systems, using dry cleanup methods, collecting the storm water runoff from the maintenance area and providing treatment or recycling, minimizing run-on/runoff of storm water areas or other equivalent measures.

vi. Source Reduction: Consider alternatives to the use of glycol-based deicing chemicals to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact.

a) *Runway Deicing Operation*: Evaluate at a minimum whether over-application of deicing chemicals occurs by analyzing application rates and adjusting as necessary, consistent with considerations of flight safety. Also

consider these BMP options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice build-up.

b) *Aircraft Deicing Operations*: Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. This evaluation must be carried out by the personnel most familiar with the particular aircraft and flight operations in question (vice an outside entity such at the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also, consider these BMP options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, thermal blankets for MD-80s and DC-9s (if applicable). Also consider using ice-detention systems and airport traffic flow strategies and departure slot allocation systems (if applicable).

vii. Management of Runoff: Where deicing operations occur, describe and implement a program to control or manage contaminated runoff to reduce the amount of pollutants being discharged from the site. The program must include a discussion of the aircraft parking apron deicing pad and glycol recovery system, which includes a dedicated deicing area, diversion manhole, two-way valve structure, and 25,000 gallon collection tank. Also, consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of storm water contamination. Used deicing fluid should be recycled whenever possible.

(6) *Spill Prevention and Response Procedure.* Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the SWPPP and made available to the appropriate personnel. The necessary equipment to implement a clean up must also be made available to personnel. The permittee shall immediately notify the office of releases in excess of reportable quantities.

(7) *Storm Water Management.* The SWPPP must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity (see Part I.C.6 of this permit), the SWPPP must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.

(8) *Sediment and Erosion Prevention.* The SWPPP must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.

(9) *Employee Training.* Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for storm water management at all levels, of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping, and material management practices. The SWPPP must identify periodic dates for such training.

(10) *Disposal Procedures.* The disposal procedures for tank bottom waters, tank bottom sludge, oil/water separator sediments, oil/water separator oils, oil absorbent cleaning material(s) and any washdown waters containing detergents, dispersants, emulsifiers, etc. must be documented in the SWPPP.

(11) *Visual Inspections.* Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least five (5) years. At a minimum, the permittee must conduct monthly inspections during all months in which deicing chemicals may be used. Also, if significantly or deleteriously large quantities of deicing chemicals are being spilled or discharged, or if water quality impacts have been reported, increase the frequency of the inspections to weekly until such time as the chemical spills/discharges or impacts are reduced to acceptable levels. The DEM may specifically require the permittee to increase inspections and SWPPP reevaluations as necessary.

(12) *Recordkeeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

c. Deicing Fluid Collection and Management. A description of equipment and operation and management procedures related to deicing fluid usage and collection. The permittee shall implement a glycol recovery program that includes the following minimum components:

(1) *Collection Program Operating Procedures.* Standard operating procedures and overall glycol recovery goals for the collection program, including at a minimum, the following:

i. Overall collection efficiency goals for glycol collection program;

ii. Dry weather (if applicable) and wet weather operating procedures;

iii. Management and description of glycol storage tanks, aircraft deicing pad, and glycol recovery tank;

iv. Recordkeeping forms and procedures;

v. Training program for glycol collection personnel.

(2) *Annual Deicing Fluid Collection and Management Report.* An annual report

must be prepared which provides a summary and description of glycol usage, collection and management activities during the previous deicing season. Such report shall be submitted to the DEM with the Annual Site Inspection Reports required under Part I.C.6.h. no later than July 15th of each year and must include, at a minimum, the following:

i. Tabular summary of aircraft deicing fluid usage and collection volumes (total glycol used and collected per day that deicing occurs, total glycol used and collected annually, annual % glycol collected, and % glycol collected per storm event);

ii. Summary of overall seasonal weather conditions;

iii. A summary of each event specific report that includes a discussion of types and timing of storms and resulting effect(s) on collection activities for each individual storm event;

iv. A summary of all odor complaints received and any investigations and related amendments to the SWPPP and associated BMPs;

vi. Recommendations for usage and collection procedures, and equipment to improve collection efficiencies and overall program management, enhanced BMPs and recommendations to amend the SWPPP. The recommendations must include a schedule to amend the SWPPP and implement enhanced BMPs subject to the Director's approval.

d. Fertilizer and Pesticide Management. The permittee shall develop and implement BMPs for fertilizer and pesticide management with the goal of reducing or eliminating the concentrations and loads of fertilizers and pesticides in storm water discharges to the receiving waters. Mosquito control products shall be employed in accordance with State requirements by qualified personnel.

e. Post-Construction Storm Water Management in New Development and Redevelopment. The permittee shall develop and implement a program to address storm water runoff from new development and redevelopment projects. The plan must address direct discharges of storm water to waters of the State in addition to the discharges to the storm drainage system. The program must ensure that controls are in place to prevent or minimize water quality impacts. The post-construction program must include:

(1) Development and implementation of strategies which include a combination of structural methods such as detention basins, wet basins, infiltration basins and trenches, dry wells, galleys, vegetated swales and vegetated filter strips and/or non-structural BMPs.

(2) Procedures for site plan review to ensure that design of controls to address post-construction runoff are consistent with: The State of Rhode Island Storm Water Design and Installation Manual (as amended).

(3) Procedures to ensure adequate and long-term operation and maintenance of BMPs.

(4) Procedures to develop and implement strategies to reduce runoff volume which may include minimizing impervious areas such as roads, parking, paving or other surfaces, encouraging infiltration of non-contaminated runoff, preventing channelization, encouraging sheet flow, and where appropriate, preserving, enhancing or establishing buffers along surface water bodies and tributaries.

f. Non-Storm Water Discharges.

(1) *Certification of Non-Storm Water Discharges.* 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 RIPDES Rule 12 and include the following:

i. the date of any testing and/or evaluation;

ii. identification of potential significant sources of non-storm water at the site;

iii. a description of the results of any test and/or evaluation for the presence of non-storm water discharges;

iv. a description of the evaluation criteria or testing method used; and

v. a list of the outfalls or onsite drainage points that were directly observed during the test.

A copy of the notification must be included in the SWPPP at the facility. Non-storm water discharges to waters of the State that are not authorized by a RIPDES permit are unlawful and must be terminated.

(2) *Allowable Non-Storm Water Discharges.* Certain sources of non-storm water are allowable under Part I.A.15 of this permit. In order for these discharges to be allowed, the SWPPP must include the following:

i. identification of each allowable non-storm water source;

ii. the location where it is likely to be discharged; and

iii. descriptions of appropriate BMPs for each source.

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.

g. Annual Site Inspection Report. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.C.6.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. If possible, the annual site inspection must be conducted during a period of actual deicing operations. If not practicable during active deicing or the weather is too inclement, conduct the evaluations when deicing operations are likely to occur and the materials and equipment for deicing are in place. The following areas shall be included in all inspections: aircraft and runway deicing areas, storage areas for aircraft/vehicles/equipment awaiting maintenance, fueling area(s), aircraft/vehicle/equipment maintenance areas (both indoors and outdoors), material storage areas, aircraft/vehicle/equipment cleaning areas, loading and unloading areas, and storm water discharge location and receiving water. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. A copy of the annual site inspection

report and records documenting significant observations made during the site inspection must be submitted to the DEM by July 15th for the previous twelve (12) month period (July 1 – June 30). A copy of the annual site inspection report must also be retained as part of the SWPPP for a minimum of five (5) years.

h. Consistency with Other Plans. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

D. 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 submitted along with the monitoring reports.

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 submitted along with the monitoring report. 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.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent specific MDL. The effluent 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.

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 required MDL from this section shall be included as zeros.

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 *	0.013
6B	benzo(a)pyrene *	0.023
7B	3,4-benzofluoranthene *	0.018
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	0.017
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 *	0.15
19B	dibenzo (a,h) anthracene *	0.03
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 *	0.043
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)
BOD_5	4.0 mg/l
TSS	2.0 mg/l
Fecal Coliform	2.0 MPN/100 ml
TRC	5.0 mg/l
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
Total Xylenes	0.5
Ethanol	2.0 mg/l

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) MDL
*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

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.

E. 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 Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission.

Quarterly monitoring periods shall be defined as follows:

Quarter	Period	DMR Postmark Deadline
1st	January 1 – March 31	April 15
2nd	April 1 – June 30	July 15
3rd	July 1 – September 30	October 15
4th	October 1 – December 31	January 15

The first report is due on _____. Signed copies of these, and all other reports required herein, shall be submitted to:

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

3. In addition to the required sampling results submitted in accordance with Part I.A.1., I.A.2., and I.A.3. of this permit, the permittee must provide the date and duration (hours) of the storm events sampled, the total depth of rainfall (inches), and the total volume of runoff (Ft^3). This information must be submitted with the Discharge Monitoring Report forms at the frequency specified in Part I.E.2 of this permit.

4. If the permittee is unable to collect samples due to adverse climatic conditions which make the collection of samples dangerous or impractical, the permittee must submit, in lieu of sampling data, a description of why samples could not be collected, including available precipitation data for the monitoring period. The permittee can only exercise this waiver once in a two (2) year period for the outfalls designated as 001 and 100. A waiver is not required if there was no flow from the outfall for the reporting period. This information must be submitted with the Discharge Monitoring Report form for the period in which a sampling waiver is being requested.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

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

RIPDES PERMIT NO.

RI0021555

NAME AND ADDRESS OF APPLICANT:

Rhode Island Air National Guard
143rd Airlift Wing
2 Hercules Drive
North Kingstown, RI 02825

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Rhode Island Air National Guard
Quonset State Airport
2 Hercules Drive
North Kingstown, RI 02825

RECEIVING WATER:

Frys Pond
(Water body ID#: RI0007027L-06)

CLASSIFICATION:

A

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 reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicants discharge consists of storm water runoff associated with industrial activity at Rhode Island Air National Guard's base. The discharge is to Frys Pond.

II. Limitations and Conditions

The effluent limitations, monitoring requirements, and any implementation schedule (if required) may be found in the draft permit.

III. Description of Discharge

The Rhode Island Air National Guard (RIANG) 143rd Airlift Wing (143 AW) operates the facility located at the Quonset State Airport in North Kingstown, RI. The facility (referred to as the "Base") provides support for the 143 AW, which flies and maintains C-130 aircraft to support its

airlift mission. This permit authorizes storm water and allowable non-storm water point source discharges as defined in the Permit to Frys Pond from RIANG's storm water collection system. For the purposes of this permit, storm water includes storm water runoff and snowmelt runoff. There is no limit on the time between the snowfall and snowmelt for the purpose of including a snowmelt discharge in the definition of storm water. Allowable non-storm water discharges are limited to treated effluent from firefighting activities; fire hydrant flushings; hydrostatic test water; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; clear water rinses of C-130 aircraft; 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 potable water sources which include vehicle, equipment, and surface wash down waters that do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added, and must be identified in the facility's SWPPP. Any other discharges are not authorized under this permit. The conditions in this permit apply to all Base personnel and contractors/vendors engaged in servicing, repairing, or maintaining aircraft and ground vehicles, equipment cleaning and maintenance (including vehicle and equipment rehabilitation, mechanical repairs, painting, fueling, lubrication), or deicing/anti-icing operations.

Outfalls 001 and 100 discharge to Frys Pond in the segment defined as water body ID number RI0007027L-06. This segment is described as Frys Pond in the Town of North Kingstown. This segment is located in North Kingstown and is classified as a Class A water body according to the RI Water Quality Regulations. Class A waters are designated for primary and secondary contact recreational activities and for 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 excellent aesthetic value. Currently, this water body is not listed as being impaired.

Discharges of storm water for the entire RIANG base are regulated by the conditions in the permit for Outfall 001A, while discharges of storm water from the Hercules Drive drainage area and Petroleum-based fuels, oil or lubricants (POL) Facility yard area, tanker truck parking area, and secondary containment areas will be regulated by the conditions in the permit for Outfall 100 following the installation of a representative sampling location (not to exceed July 1, 2016). All discharges will be treated by an oil/water separator (OWS) prior to discharge. A quantitative description of the discharge from Outfall 001 in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A-1. Attachment A-2 includes a site location map and Attachment A-3 includes a site plan that identifies building locations, the existing storm water drainage system, storage tank locations, and oil/water separators.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Description of the Facility

The RIANG 143rd AW is located at the Quonset State Airport, in North Kingstown, Rhode Island. The airport is located approximately 1,200 feet west of the Narragansett Bay at its closest point. The Bay surrounds Quonset Point on three sides. The Base is a tenant of the State of Rhode Island and is responsible for the operation and maintenance of the approximately 85-acre tract on the western side of the airport property. Properties surrounding the Base include the airport taxiways and runways to the east, a public golf course to the north, and industrial facilities to the west and south. The 143 AW was originally located at T.F. Green Airport in Providence, Rhode Island. In 1980, the unit moved to its present location. Before the tenancy of the 143 AW, the property was part of the Quonset Point Naval Air Station (NAS). The Station grounds are now occupied by the 143 AW. Buildings 1, 4, 9, 12, and 13 were refurbished for use by the ANG and Buildings 9 and 13 have since been demolished. All other buildings on the Base have been constructed since 1980.

The purpose of the Base is to provide organizational and maintenance support to the 143 AW. The 143 AW flies and maintains C-130 aircraft to support its airlift mission. The major support operations performed at the Base include aircraft refueling and defueling, aircraft deicing, aircraft maintenance, Aircraft Ground Equipment (AGE) maintenance, ground vehicle maintenance, refueling of ground vehicles, and facilities maintenance.

The operations related to aircraft maintenance include such activities as corrosion control, non-destructive inspection (NDI), fuel cell maintenance, engine maintenance and testing, hydraulics, washing, and wheel and tire maintenance. The AGE and ground vehicle maintenance operations include: fluid changes (e.g., oil, transmission, antifreeze, etc.); filter changes (gas, oil transmission, air, etc.); brake repair; lube, grease and repair of the axle and drive trains; body repair; welding; minor painting; and washing. Facilities maintenance operations include structural maintenance and repairs, painting, chemical treatment (i.e. pesticides, fertilizers, and herbicides), mowing, and utility maintenance.

Industrial Activities:

Aircraft, Vehicle and Equipment Maintenance: Storm water discharges covered in this category include runoff from areas where the following maintenance activities may occur: fluid changes; mechanical repairs; parts cleaning; vehicle washing; storage of vehicles and equipment waiting for repair or maintenance; and storage of the related materials and waste materials, which typically include: oil, fuel, solvents, antifreeze, hydraulic fluid, grease lubes, batteries, tires, or oil and fuel filters.

Vehicle and Aircraft Refueling Operations: Storm water discharges covered in this category include runoff from areas where refueling operations may occur. These activities include fuel delivery to the facilities, fuel storage both in separate containers and in vehicle tanks, and fuel dispensing.

Aircraft Deicing: Discharges covered under this description include runoff from areas associated with aircraft deicing operations. This type of activity occurs during winter months on the Aircraft Parking Apron and newly constructed deicing pad. The deicing pad and glycol recovery system consists of a dedicated deicing area, diversion manhole, two-way valve structure, and 25,000 gallon collection tank was completed in September 2014.

Hazardous Materials Storage: Storage areas for new and waste materials typically include paints, solvents, oil, lubricants, propylene glycol, antifreeze, detergents, batteries, and used filters when the storage areas are either directly exposed to rainfall or when spills or leaks from these areas have the potential to enter the storm drainage system.

Raw Material Stockpiles: Storm water discharges covered in this category typically include runoff from stockpiles (i.e., salt, sand, mulch), bins, scrap piles, and storage areas.

Existing Environmental Management Plans:

An Oil and Hazardous Substances Spill Prevention and Response Plan (SPRP) dated December 2013 has been prepared for the 143rd AW. This plan satisfies requirements stipulated in the Air National Guard policy and guidance for Oil and Hazardous Substance Contingency Plans, and applicable federal regulations (40 CFR 112) for a Spill Prevention and Countermeasures (SPCC) Plan. The SPCC portion in the plan has been prepared to comply with 40 CFR 110. Federal Regulation 40 CFR 110 makes it illegal to discharge oil, in any quantity, to the surface waters of the United States. The regulation requires facilities with petroleum storage and handling facilities to prepare and implement a SPCC Plan. The SPRP provides a summary of federal SPCC regulations applicable to the Base and also identifies sites having a reasonable potential to discharge oil or hazardous substances to the environment.

The Base has eight outdoor ASTs (three at the Petroleum-based fuels, Oils, and Lubricants (POL)

facility, four at Vehicle Maintenance, and one at Building 8), and nine oil/water separators (OWSs) on Base property. All these OWS discharge to the municipal wastewater system with the exception of the 22,500 gallon Apron OWS and the 8.000 gallon POL Facility OWS. An Operation and Maintenance (O&M) Manual has been developed for the Base POL. The O&M Manual provides a brief description of the jet fuel dispensing and storage system, safety procedures, system operation procedures, operational contingencies, troubleshooting methods, inspection procedures, and maintenance requirements.

A Pollution Prevention Plan (P^2P) was prepared in 1994 for the 143rd AW. The objective of this plan is to reduce pollution to the air, ground, surface waters, and groundwater. The strategy for the plan is source reduction and waste minimization.

The Installation Restoration Program (IRP), predecessor to the Environmental Restoration Program, Preliminary Assessment (PA) of the Base identifies and assesses areas posing a potential threat to human health or to the environment due to contamination from past or present hazardous material operations. The results of this assessment, performed in 1992, looked at past and present operations on the Base that have a potential to result in environmental contamination. The IRP identified no sites on the Base as potential hazards that merited further investigation. In October 2014, preliminary investigations were conducted at the vehicle maintenance, the POL parking lot, and the Fire Department and the results are pending.

Site Buildings:

POL Facility: This facility is located in the central portion of the Base, is comprised of Building 14 (Office/Lab), structures 110 and 111 (105,000-gallon Jet Fuel A ASTs), 18 and 19 (pump and filter pad and shelter), and is used for storage and transfer of aviation fuels. This area is completely enclosed by a security fence with lockable gates and restricted to Base personnel unless escorted.

The Jet Fuel A ASTs are of the fixed-roof floating pan design, and are located within concrete secondary containment with sufficient capacity for catastrophic failure of a full tank with adequate freeboard for precipitation (about 123% of tank capacity, based on measurement taken at the site). Following inspection of the containment to assure that there is no oil sheen or other evidence of leakage, the secondary containment is drained to an underground drainage system conveying flow to the POL's 8,000-gallon oil/water separator (OWS). The drain valve for the containment is normally closed and locked to prevent inadvertent discharge of collected storm water to the storm drainage system. The pump/filter structure can also be drained using a drain valve.

The fill and unloading stands are located on concrete pads designed to channel liquid to inlets connected to the OWS. Three refuelers (one 5,000-gallon, two 6,000-gallon capacity) and a 250-gallon "fuel bowser" transportable fuel tank are normally parked east of the fill/unloading stands. Each parking area is a concrete pad that slopes to an individual storm drain receptacle also connected to the OWS.

A 2,000-gallon, double-walled used/waste Jet Fuel A AST is located southeast of the pump/filter shelter. Spills associated with this AST would flow east through grass to a storm water inlet. A 70-gallon AST containing diesel fuel for its associated emergency generator sits beneath the engine on a concrete pad west of the POL Office/Lab (Bldg. 14). The generator is regularly inspected and maintained to assure that it will operate when needed. Spills from this tank could be readily contained in the immediate area of the generator on the pad, on the gravel around the pad, and on the POL paved area.

Storm water runoff would most likely be impacted by leaks or spills involving fuel transfer operations during fuel truck loading and unloading at the POL facility. Sorbent materials and booms are available in the event of a spill. Spills that could not be readily contained using the spill containment equipment stored near the fill and unload stands would drain to the 8,000-gallon OWS. In the unlikely event a spill exceeding the capacity of the 8,000-gallon OWS, the discharge then flows

through a 22,500-gallon OWS prior to discharge to Frys Pond.

Aircraft Parking Apron: The Apron (or Flightline) is located on the east part of the Base and is used for parking, refueling, deicing, and minor maintenance of aircraft. This area is completely paved and drains to the main storm system through a 22,500-gallon capacity oil/water separator prior to discharge through the main storm drain to Frys Pond. This area is restricted to Base personnel unless accompanied by an escort.

Deicing fluid is applied to aircraft on the Apron using a Landoll Model TM 1800 deicing truck. The deicing truck has two tanks that contain water (1,300 gallons) and pure deicing fluid (500 gallons), respectively. The liquids are mixed at the nozzle based on the outdoor temperature. The mixture may vary between 40% and 60% aircraft deicing fluid. Approximately 100 to 1,000 gallons of mixed deicing fluid are used annually at the Base. Additionally, the base has constructed a new deicing pad complete with a glycol recovery system. The deicing truck is typically staged inside Building 575 during winter months and outside Building 3 otherwise.

A deicing fluid recovery system is included on the Apron addition. Drainage from the ramp will enter a valve structure (diversion manhole). A diversion manhole shall serve to direct glycol effluent during deicing operations from the storm water system to a pump station. During normal (non-deicing) operations the valves allow flow to the storm water system. Diversion will be accomplished with two valves that will be motor actuated to open and close flow to the deicing fluid collection tank and storm water system accordingly. A control panel will allow base personnel to control the valve orientations by push button.

A control panel will include push button automation of the control valves. A single button is pushed to configure the system for deicing activities (i.e. close the storm water valve and open the deicing valve). After deicing activities are completed, a second and separate push button will configure the system to direct storm water to the storm sewer (i.e. open the storm water valve and close the deicing valve). The control panel will have audible alarms and lights to notify the operator of the systems configuration (i.e. deicing or storm water modes).

All fluid collected during deicing operations will be recycled. Aircraft Maintenance is responsible for setting up a contact to have the fluid picked up and recycled as needed. All paperwork and amounts will be tracked and submitted to the base Environmental Management (EM) office. Additionally, Aircraft Maintenance will report total amount of deicing fluid during each use. The EM office will report the numbers to the DEM on an annual basis to satisfy the permit conditions for reporting.

RIANG has specific training missions that require formation flying. In the cases where two or more aircraft generations are required, one aircraft will be deiced in the deicing pad and the other remaining aircraft will be deiced in their current parking positions (1 thru 6). The deicing truck will circle the aircraft, deicing the aircraft using a 50/50 application mixture of heated water and deicing fluid, minimizing usage and environmental impact. Maintenance personnel will log all use of deicing fluid that includes dates, times, and amounts. A complete deicing Standard Operating Procedure (SOP) is located in the SWPPP.

Storm water runoff is most likely to be impacted by spills during refueling operations and deicing applications during winter months. Refueling operation spills could result from leaking or ruptured fuel loading lines, from leaking fittings on the refueler or the aircraft, from overfilling of the aircraft, from venting of the aircraft's fuel tanks, or from catastrophic failure of fuel tanks on either the refueler or the aircraft. Other spills within the apron area may result from hydraulic fluids, oils, deicing fluid application, and coolant from leaking lines on the aircraft or ground support equipment. Sorbent materials and booms are stored on the Flightline at several locations in the maintenance hangars.

Vehicle Maintenance Facility: This facility (Bldg. 3) is used for the general maintenance and refueling of ground vehicles, including jeeps, pickup trucks, step vans, and cars. There is light storage of hydraulic fluids, motor oil, and solvents onsite. These fluids are stored in secondary

containment structures. In addition, the floor drains are normally plugged so that uncontained spills will note enter the sanitary sewer system. The building drains to a 175-gallon capacity oil/water separator prior to discharge into the sanitary sewage system as industrial wastewater. Therefore, the interior of this building does not have any connections to the storm water drainage system. A mobile spill kit is located in the maintenance area for rapid response to, and cleanup of, small spills that may occur.

There is also a refueler truck maintenance bay in this building. The drain in this area flows through the 175 gallon capacity OWS prior to discharge to the sanitary sewer system. The battery shop stores automotive batteries dry in contained bins. A battery spill kit is kept in this room and the room drain is normally plugged. Small quantities of sulfuric acid are stored in a suitable secondary containment structure.

Vehicles, including a deicing truck with a 500-gallon capacity glycol tank, are normally parked in the parking lot around the building when not in use. There is an unsheltered vehicle fueling area comprised of two pumping stations in front of the building. Fuel to the pumping stations is supplied from three ASTs containing diesel fuel (4,000 gallons), MOGAS (4,000 gallons), and kerosene (2,000 gallons). A 1,000-gallon, used-oil AST is located near the building's west end. All ASTs have integrated secondary containment.

Storm water runoff is most likely to be impacted by spills or leaks outside the building. Spills outside the building could potentially result during fuel deliveries to the ASTs, from vehicles leaking while awaiting maintenance, during refilling of the ASTs, transferring oils to waste oil AST or from vehicles driving away without turning off the pumps. Spills in this area, if otherwise uncontained, would flow along the parking lot to storm drains or to storm drainage swales located outside the perimeter of the parking lot. This would eventually flow through the 22,500-gallon capacity oil/water separator in the main storm discharge line prior to discharge to Frys Pond.

A mixed sand/salt and soil storage area is also located immediately north of the Vehicle Maintenance facility. The area is comprised of concrete barriers on the east, north, and west sides. The sand/salt mixture is applied to roadways and sidewalks as needed during winter months. The area is not sheltered, but the pile is covered to prevent runoff into the storm drainage system.

Base Supply and HAZMAT Pharmacy: These facilities (Bldgs. 4 and 5) are located in the south-central portion of the Base. All non-bulk portable quantities (i.e., 55-gallon drums or smaller) of hazardous substances are received into Building 5 (Base Supply) though loading docks located on the east end of the building.

The larger containers, including glycol-based deicing agents, antifreeze, as well as various types of lubricating oils are stored in a covered, fenced area between the buildings. Totes and drums are primarily stored within storage lockers with integral secondary containment sumps. In addition, several drums of anti-freeze and lubricating oils are temporarily stored on pallets next to the storage lockers. These pallets have integral secondary containment sumps and the drums are covered with tarpaulins to prevent precipitation from filling the containments and rendering them ineffective. Old equipment is stored in this same area, as well as solid waste.

The smaller containers are transferred to the HAZMAT Pharmacy, inside Building 4. These containers are stored in one of three normally locked hazardous material storage rooms. Each of these rooms is constructed of concrete block with a concrete floor that is epoxy paint-coated and a four-inch high concrete sill across the doorway. Containers of solvents, paints, hydraulic fluids, lubricating oils, and corrosion prevention compounds in quantities of up to 5 gallons are stored in these rooms.

Storm water is most likely to be impacted from a release from a container during transfers to and from the buildings or storage areas. A spill may occur if a container is accidentally damaged during transfers.

Headquarters and Operations Buildings: These buildings (Bldgs. 1 & 7) are primarily used for administrative purposes. An estimated 250-gallon AST containing diesel fuel for associated emergency generators is located beneath the engine on a concrete pad next to Building 7. The generator is regularly inspected and maintained to assure that it will operate when needed.

Storm water runoff would most likely be impacted from a leak or spill during fuel transfers to the generator's AST. Spilled fuel could remain in the nearby soil or flow to a nearby storm drain. The storm drain is connected to the 22,500-gallon capacity OWS via underground piping, so a release should be contained and recovered before reaching Frys Pond.

Corrosion Control Hangar: This aircraft maintenance facility (Bldg. 8) is on the Flightline. Spot painting of aircraft is performed in this hangar. A new paint booth with two bays has been added to the south side of the building. The interior of this building has no floor drains.

Fluids stored inside the building include small quantities of corrosion inhibiting compounds, cleaners, spray paint and solvents stored in fireproof lockers with integral secondary containment. In addition, Type I aircraft cleaning compounds are stored on "Poly Spill" pallets which have integral secondary containment. Occasionally, a defueling bowser with a capacity of 250 gallons may be located in the building during aircraft defueling.

Spills in this building can occur from leaking, ruptured, or overturned containers.

Floor drains in this building discharge to an OWS specific to the building, which in turn discharges to the sanitary sewer system. Small quantities of sorbent materials are available to clean up small spills.

A 5,000-gallon AST is located outside the north wall of Building 8. The AST is designed to receive fuel from a nearby 500 gallon OWS in the event of a major fuel release inside building 8. A pump system would assist with the transfer of fuel from the OWS to the AST. The OWS and AST are preceded by a 2,000 gallon settling tank. No significant loss of oil or hazardous material has been reported in the last three years.

Aircraft Maintenance Hangar: The Hangar (Building 575) is located on the north end of the Flightline and is used to perform maintenance on aircraft electronics and communications systems. Maintenance activities are primarily conducted indoors, although some minor maintenance may be conducted on the Apron. Building 575 is a multipurpose building which houses a variety of Base functions such as tire maintenance, structural maintenance, pneudraulic shop, machine shop, and welding shop.

The sheet metal shop contains small quantities of cutting oil, paints, carbon cleaner, and solvent which are stored in suitable storage lockers with integral secondary containment. In addition, there is a corrosives storage cabinet used to store acid that has integral acid resistant storage trays that also serve as a secondary containment.

Other shops inside the Hangar store relatively small quantities of operating fluids, paints, solvents, cleaning fluids, and corrosives. These substances are typically located in a suitable storage locker with integral secondary containment.

In the phase dock area where aircraft maintenance occurs, the floors slope away from the doors and the concrete is polyurethane sealed. Spills in this area could occur from leaking fuel, hydraulic fluids, or from drums of aircraft cleaner that may be in use. In addition, small quantities of paints and solvents are stored in suitable storage lockers with integral secondary containment.

An estimated 500-gallon AST containing diesel fuel for an associated emergency generator is located beneath the engine on a concrete pad next to the building. The generator is regularly

inspected and maintained to assure that it will operate when needed. Storm water runoff would most likely be impacted from leaks or spills associated with transfers of fuel to the generator AST.

Consolidated Maintenance: This maintenance facility (Bldg. 571) is on the northeast portion of the Base. The facility includes aircraft engine maintenance, aircraft ground support equipment (AGE) maintenance, avionics, and the Non-Destructive Inspection (NDI) lab.

AGE maintenance operations are typically conducted indoors, but occasionally may be conducted outside due to special circumstances. Hazardous materials stored inside the maintenance area include new and used motor oil, lube oil, miscellaneous cleaners, lubricants, paints, solvents, and containers of used oil filters and waste fuel filters in capacities of 55-gallons or less in suitable storage lockers with integral secondary containments. A covered outdoor area north of the building is use to store AGE not on the Flightline.

Fire Department: This facility (Bldg. 11) is used for storage of fire engines and other related emergency response equipment. Large quantities of Aqueous Film Foaming Foam (AFFF) are stored inside the building. There is storage of small quantities of antifreeze, motor oil, and hydraulic fluids onsite. In addition, small quantities of paint and solvents are stored in suitable storage lockers with integral secondary containments. An estimated 200-gallon AST containing diesel fuel for an associated emergency generator is located beneath the engine on a concrete pad next to the building. The generator is regularly inspected and maintained to assure that it will operate when needed.

Spills from within this building can result from leaking containers, rupture of fuel tanks, from drums being damaged or turned over, or from equipment leaking while awaiting maintenance. Spills in this area would tend to be of small volume. Floor drains in this building discharge to an oil/water separator, which in turn discharges to the sanitary sewer system on the Base. Therefore, the interior of this building does not have any connection to the storm water drainage system. Sorbent materials are available to clean up small spills. This area is inspected regularly to determine how hazardous materials and wastes are handled.

During a September 2014 Compliance Evaluation Inspection (CEI) of the RIANG base and fire station it was identified that fire suppression foam testing occurs infrequently and results in small low quantities of foam and water. Test are done only during warm weather and with no precipitation so that the foam can biodegrade and catch basins are covered with rubber mats during the tests to prevent any potential runoff from reaching the storm water drainage system. Discharges from these actions are not authorized under this permit.

Hazardous Waste Central Accumulation Point: This building (Bldg. 17) is used as the central accumulation point (CAP) for hazardous waste awaiting removal by Defense Reutilization and Marketing Office (DRMO) and is located near Civil Engineering storage in the northern corner of the Base. All liquid hazardous waste containers at the CAP are stored on spill pallets that have integral secondary containment. Once items are moved to the CAP, they have 180 days to be removed by DRMO as RIANG is a Small Quantity Generator for hazardous waste. The interior of this building does not have any connections to the storm water drainage system.

Civil Engineering: The Civil Engineering (CE) facility (Bldg. 2) is located in the southwest portion of the Base, and includes a number of administrative offices as well as smaller maintenance areas. These maintenance areas typically possess a flammables cabinet that stores small quantities (i.e., 5 gallons or less) of maintenance fluids, including solvents, adhesives, paints, oils, and similar products. The facilities are primarily used for the design and maintenance of Base structures and properties.

An estimated 200-gallon AST containing diesel fuel for an associated emergency generator is located beneath the engine on a concrete pad next to the building. The generator is regularly inspected and maintained to assure that it will operate when needed. Storm water runoff would most

likely be impacted from leaks or spills associated with transfers of fuel to the generator AST.

Site Drainage/Storm Water Collection and Treatment System

The RIANG Base is located within a single drainage area, and there is currently one corresponding location or point source where storm water runoff generated on the Base is discharged, designated as Outfall 001. The total area drained to this outfall is 85 acres, with 52 acres of impervious area. Drainage is by overland flow to surface drainage ditches and storm drain inlets, which are connected by a network of underground pipes. The storm water collection system flows through a 22,500-gallon OWS and is discharged via a 60-inch storm drain in a concrete headwall to Frys Pond at a point immediately adjacent to a municipal golf course, near the Base's northern boundary. Frys Pond discharges into Narragansett Bay via an underground culvert.

Storm water from the surrounding roads and adjacent industrial sites also feed into the storm water system prior to reaching the Base.

For the permit's effluent limitations and monitoring requirements, Outfall 001 is defined as the final discharge point from the 60-inch storm drain located in a concrete headwall into Frys Pond that is located downstream from the 22,500-gallon OWS. All storm water is collected at the site and from off-site inputs and will be directed to this OWS prior to discharging to Frys Pond. Outfall 100 is defined as a sampling location immediately downstream from the 8,000 gallons OWS associated with the POL Facility and the Hercules Drive storm water drainage area at a location within the 30-inch RCP storm drainage line, prior to commingling with off-site storm water inputs. In order to eliminate the impact of off-site storm water and tidal influences to Outfall 001, the Outfall 100 limitations and monitoring requirements will replace those for Outfall 001 from a date approved by the DEM, not to exceed July 1, 2016 as noted in the Part I.C.2.a.(2) permit schedules.

General Requirements

The requirements set forth in this 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 RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

Explanation of Effluent Limitation Derivation and Conditions

Development of Rhode Island Pollutant Discharge Elimination System (RIPDES) permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels based on instream criteria, background data and available dilution; identifying any technology-based limits that apply to the facility; assigning appropriate Best Professional Judgment (BPJ) limits; setting the most stringent of these limits (water quality-based, technology-based, and BPJ-based) as the final allowable discharge levels; comparing existing permit limits to the new allowable discharge levels; and evaluating the ability of the facility to meet the final permit effluent limits.

The draft RIPDES permit for RIANG, authorizing the discharge of treated storm water, includes numeric effluent limitations and requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for additional protection of the environment. An amended SWPPP must be submitted to the DEM for review within one (1) year following the approved date to install Outfall 100, which includes the addition of the representative sampling/monitoring point (to be defined as Outfall 100), sampling protocols for wet and dry weather sampling events, and updated site plans identifying the location of Outfall 100. In addition to the amended SWPPP, within thirty (30) days of the effective date of the permit, RIANG must submit a scope of work and proposed schedule, not to exceed July 1, 2016, for the design, permitting (if necessary), and

construction of a representative sampling/monitoring point (to be defined as Outfall 100) located downstream from the 8,000 gallon oil/water separator associated with the POL Facility and the Hercules Drive storm water drainage area. The scope of work and proposed schedule must include an evaluation of the storm water collection system downstream of the vehicle maintenance/refueling facility (Building 3) and POL facility to determine a representative sampling point not affected by off-site storm water inputs. The scope of work and schedule will be subject to DEM review, modification and approval. RIANG must comply with the following effluent limitations and monitoring requirements prior to and following the construction of a representative sampling point: (1) from the effective date of the permit until the DEM approved date to install Outfall 100, not to exceed July 1, 2016, the permittee shall comply with the effluent limitations and monitoring requirements for Outfall 001 contained in Part I.A.1. of the permit; (2) from the DEM approved date to install Outfall 100, not to exceed July 1, 2016, and lasting through permit expiration, the permittee shall comply with the effluent limitations and monitoring requirements for the DEM-approved internal sampling location designated as Outfall 100 contained in Parts I.A.2. (wet weather sampling) and I.A.3. (dry weather sampling) of the permit. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for the two Outfalls being regulated by this permit.

Technology-based Limits

Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the CWA (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. EPA has not promulgated National Effluent Guidelines for storm water discharges from bulk storage petroleum facilities, but has promulgated Effluent Guidelines from facilities that operate as primary airports (defined at 49 U.S.C. 47102).

In August 2000 the U.S. EPA reissued the *Preliminary Data Summary-Airport Deicing Operations (Revised).* The DEM has utilized this document for guidance in reviewing the Storm Water Pollution Prevention Plan (SWPPP), in addressing toxicity issues with aircraft and pavement deicing/anti-icing agents used, and verifying the use of the most recent and acceptable BMPs to eliminate pollution from entering the storm water drainage system. The Preliminary Data Summary provides information about the air transportation industry and the best management practices being employed for aircraft and airfield deicing operations, as well as for the collection, containment, recovery, and treatment of wastewater containing deicing agents. EPA conducted a study of airport deicing operations to collect engineering, economic, and environmental data for use in determining whether national categorical effluent limitations guidelines and standards should be developed for this category of dischargers. A secondary purpose of this study was to provide information to permit writers, control authorities, airports, and airlines in developing pollutant control strategies for discharges from airport deicing operations.

Following the Preliminary Data Summary, EPA finalized effluent guidelines (ELGs) in May 2012. The EPA issued technology-based effluent limitations guidelines and new source performance standards to control discharges of pollutants from airport deicing operations (40 CFR Part 449). The requirements generally apply to wastewater associated with the deicing of airfield pavement at primary airports. The rule also establishes new source performance standards for wastewater discharges associated with aircraft deicing for a subset of new airports.

According to the ELGs, existing and new primary airports with 1,000 or more annual jet departures ("non-propeller aircraft") that generate wastewater associated with airfield pavement deicing are to use non-urea containing deicers, or alternatively, meet a numeric effluent limitation for ammonia. Also, new airports with 10,000 annual departures located in certain cold climate zones are required to collect 60 percent of aircraft deicing fluid after deicing. Airports that discharge the collected aircraft deicing fluid directly to waters of the U.S. must also meet numeric discharge requirements for chemical oxygen demand. The rule does not establish requirements for aircraft deicing discharges at existing airports. Such requirements will continue to be

established in general permits or site-specific individual permits.

According to RIANG, the main aircraft flown out of the 143rd AW is the C-130J, which is a large prop aircraft. Other transient landing and departures are infrequent and not appreciable. Therefore, RIANG does not meet the applicability threshold of "at least 1,000 annual non-propeller aircraft departures" as an existing facility. In the absence of technology-based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

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 management requirements common to all permits.

BPJ-based Limits

Outfall 001/100: The discharge from Outfall 001A receives treatment from a 22,500-gallon oil/water separator due to the nature of activities taking place in the corresponding drainage basin (i.e., fueling, fuel storage, aircraft/vehicle/equipment maintenance, material loading/unloading, etc.) and the potential for VOCs/SVOCs to be present in the respective discharges. This outfall must be sampled as required in Part I.A.1. of the permit from the permit's effective date until the DEM approved date to install Outfall 100, not to exceed July 1, 2016, to closely monitor the effectiveness of the oil/water separator. The discharge from Outfall 100 receives treatment from an 8,000-gallon oil/water separator due to the nature of activities taking place in the corresponding drainage basin (i.e. fueling, fuel storage, etc.) and the potential for VOCs/SVOCs to be present in the respective discharge. Only the storm water runoff from the POL Facility receives treatment from the oil/water separator, while the storm water runoff from the Hercules Drive drainage area ultimately receives treatment from the 22,500-gallon separator. Outfall 100 must be sampled as required in Part I.A.2. of the permit for wet weather and as required in Part I.A.3. for dry weather from a date approved by the DEM, not to exceed July 1, 2016, and lasting through permit expiration. Sampling at Outfall 100 will not be required until a representative sampling location has been determined and constructed in accordance with Part I.C.2.a. of the permit.

Effluent limitations for Outfall 001 and Outfall 100 have been established for total suspended solids (TSS) and oil and grease. The daily maximum effluent limitation of 20 mg/l for TSS is a BPJ-based limit based on the ability of bulk petroleum storage terminals to comply with the numeric limit utilizing proper BMPs and using oil/water separators and or holding/equalization basins as the storm water treatment technology. TSS has been limited to account for the potential for petroleum hydrocarbons to adsorb or absorb to particulates and be transported with the suspended material. The daily maximum effluent limitation of 15 mg/l for oil and grease is a BPJ based limit based on American Petroleum Institute (API) oil/water separator guidelines. The draft permit limit for oil and grease remains unchanged from the previous permit at 15 mg/L daily maximum. Performance data from facilities similar to this facility indicate that these effluent limits can be achieved through the proper operation of a correctly sized oil/water separator, appropriate source controls, routine inspections, preventative maintenance, good housekeeping programs, and effective best management practices (BMPs).

Outfall 100 must also be monitored for benzene, toluene, ethylbenzene, total xylenes, Ethanol, and sixteen (16) polynuclear aromatic hydrocarbons (PAHs). These pollutants were chosen because they are indicators used to characterize contamination from the petroleum hydrocarbons stored at the site. The permit requires quarterly analysis of BTEX, Ethanol and the PAHs.

Flow: The treatment technology for storm water runoff employed by this facility are oil/water separators. These devices use gravity to separate the lower density oils from water; resulting in an oil phase above the oil/water interface, and a heavier particulate (sludge) phase on the bottom of the oil/water separator. To ensure proper operation of the installed oil/water separators such that the oil and/or particulate phases are not entrained to the waterway, DEM is requiring that the release of runoff from any secondary containment area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewaters does not exceed the design flow rate for the oil/water separator or cause violations of the effluent limitations specified in the permit. A separate control valve for the secondary containment areas associated with the POL facility allows for the release of storm water from this area. Flow must be monitored and reported for both of these outfalls to ensure that the oil/water separator design flow rates are not exceeded.

Water Quality-based Limits

The narrative effluent limitations for pH are based on water quality criteria established in the State's Water Quality Regulations for Freshwater Receiving Waters. In accordance with 40 CFR Part 122.4(d)(1)(iii), it is only necessary to establish limits for those pollutants in the discharge which have the reasonable potential to cause or contribute to the exceedance of the in stream criteria. With the exception of pH, all other pollutants that have water quality criterion were listed as not being present in the discharge (i.e., non-detect) on the permit application. Therefore, the only pollutant that requires a water quality-based limit is pH.

Aircraft and Pavement Deicing/Anti-Icing Permit Requirements:
The permit requires a best management practice (BMP) approach for glycol management. A storm water BMP is defined as any program, technology, process, citing criteria, operating method, measure or devices that controls, removes or reduces pollution. Based upon the factors cited below, the permit requires that RIANG develop and implement a Storm Water Pollution Prevention Plan that includes BMPs to promote source reduction and pollution prevention and to be protective of water quality standards and criteria in the receiving waters such as dissolved oxygen, aquatic toxicity, foaming, nuisance odors, and nuisance bacteria growths. The permit requires the development of BMPs to minimize the amount of fluids applied to aircraft, minimize contact and dilution with storm water, prevent releases from accidental spills or leaks, minimize releases from melting deicer contaminated snow, and the use of available technology and controls that collect and dispose of contaminated storm water and prevents the dry weather discharge of deicing fluids.

As part of the efforts to manage contaminated runoff due to deicing activities, a C-130 aircraft parking apron deicing pad and glycol recovery system was constructed at the RIANG base in 2014. The pad and system consist of a dedicated deicing area, diversion manhole, two-way valve structure and 25,000 gallon collection tank.

The permit does not authorize the use of Urea or Glycols for runway or pavement deicing and requires RIANG to implement runway and pavement deicing BMPs that include pollution prevention such as choosing environmentally sensitive products and source reduction BMPs such as anti-icing techniques. The proposed BMPs when implemented will meet the narrative criteria of "no toxics in toxic amounts".

The permit requires RIANG to implement BMPs and a Glycol Management Plan that reduces the potential for foaming caused by the discharge of deicing chemicals.

Deicing/Anti-Icing:

For the purposes of this permit, the term "deicing" is defined as the process to remove frost, snow, or ice and "anti-icing" is the process that prevents the accumulation of frost, snow, or ice. This permit covers only deicing activities.

Propylene and ethylene glycol are the deicing compounds most commonly used at airports. Environmental impacts associated with the discharge of propylene glycol to surface waters include: reduction in dissolved oxygen (DO) levels, aquatic life toxicity, offensive odors and the growth of nuisance bacteria. Deicing/anti-icing operations may be performed at RIANG from October through May.

Foaming:

The RI WQ Regulations establish narrative criteria for foam of "none allowable". Airplane deicing chemicals (commonly referred to as ADFs) are known to contain additives including surfactants. The permit contains a condition that states "The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time".

SWPPP: Pursuant to Section 304(e) of the CWA and 40 CFR§125.103(b), best management practices (BMPs) may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA. The facility stores and handles pollutants listed as toxic under Section 307(a)(1) of the CWA or pollutants listed as hazardous under Section 311 of the CWA and has ancillary operations that could result in significant amounts of these pollutants reaching surface waters. These operations include one or more of the following items from which there is or could be site runoff: materials storage, materials processing and handling, blending operations, intra-facility transfers, and loading/unloading of product. To control these activities/operations, which could contribute pollutants to waters of the United States via storm water discharges, at this facility; the permit requires this facility to develop a Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this specific facility. The BMPs should include processes, procedures, schedule of activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in storm water runoff. The draft permit requires the permittee to update and implement the SWPPP one (1) year following the DEM approved date to install Outfall 100.

Certain required elements of the SWPPP are listed below.

- Description of Potential Pollutant Sources
- Storm Water Management Controls
- Deicing Fluid Management/Source Reduction/Annual Deicing Management Report
- Fertilizer and Pesticide Management
- Post-Construction Storm Water Management in New Development and Redevelopment
- Non-Storm Water Discharges
- Site Inspection
- Consistency with Other Plans

Prohibited Discharges

Non-storm Water Discharges: This permit authorizes some non-storm water discharges. These discharges include treated effluent from firefighting activities; fire hydrant flushings; hydrostatic test water; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; clear water rinses of C-130 aircraft; 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 potable water sources which include vehicle, equipment, and surface washdown waters which do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added. To prevent hydrocarbon and/or particulate entrainment (carry-over) from the treatment system, the permittee

shall not add chemicals, soaps, detergents, solvents, emulsifiers, etc. to any fresh water wash down collection and treatment system without prior approval by the DEM.

All other non-storm water discharges including fire protection foam (either in concentrate form or as a foam diluted with water) not associated with firefighting activities, sludge and/or bottom deposits, discharges from floor drains/trench drains located within building and/or hangars, vehicle/aircraft/equipment washing, rubber removal practices, dry weather discharges of deicing chemicals, engine compressor washes of C-130 aircraft (except for the clear water rinses of C-130 aircraft), and sanitary wastewater are excluded from coverage under this permit. Thus, the permittee is required to obtain a separate RIPDES permit for these non-storm water discharges or seek the necessary approval(s) from the appropriate local pretreatment authority to discharge to the sanitary sewer system.

Tank Bottom Water: The bottom of many petroleum product storage tanks may contain a layer of water that has separated from the stored petroleum product due to the density difference between the product and water. As this water coalesces and then settles to the bottom of the tank, it partitions (dissolves) PAHs from the petroleum product. Through this process, the water selectively extracts some of these hazardous substances and may become toxic. To avoid product contamination, terminal operators drain this water layer to prevent transfer with the product.

Whereas storm water contacts only those hydrocarbons spilled on the ground and then only for short periods of time; tank bottom water remains in intimate proximity with petroleum derivatives for prolonged periods of time, allowing the pollutants the necessary contact time to dissolve into the aqueous phase. Storm water also is discharged from the facility in a timely fashion to maintain maximum storage capacity within the diked areas at all times. This procedure also minimizes the contact time between petroleum product and storm water.

The DEM considers tank bottom water a "process wastewater", since it can partition soluble toxic materials from petroleum product with time. To protect surface waters from pollutants dissolved in tank bottom water, the DEM is prohibiting the permittee from discharging any tank bottom water alone or in combination with storm water or other wastewater directly from the facility. The facility is required by the permit to dispose of tank bottom water off-site by a licensed hazardous waste contractor.

Hydrostatic Test Water: To protect Frys Pond from pollutants dissolved in any hydrostatic test water the DEM is prohibiting the permittee from discharging tank and/or piping hydrostatic-test water, and tank and/or pipe cleaning residual/debris associated with hydrostatic-testing procedures alone or in combination with storm water or other wastewater to the separate storm sewer system or to waters of the State.

Contaminated Groundwater: Infiltration/Inflow of contaminated groundwater into the storm water collection and treatment system is not authorized by this permit and must be addressed by the permittee pursuant to the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

Antibacksliding

EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued.

The limits in the draft permit are no less stringent than what are in the previous permit. Therefore, since all of the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

The RI DEM has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy.

V. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. 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:

Aaron Mello
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-6820 Ext.7405
Email: aaron.mello@dem.ri.gov

9/9/15
Date

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

ATTACHMENT A-1

DESCRIPTION OF DISCHARGES: Storm Water

DISCHARGE: 001A – Effluent from Oil/Water Separator

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	**AVERAGE[1]**	**MAXIMUM[2]**
FLOW (GPD)	87,000 GPD	N/A GPD
Oil and Grease	N/A mg/l	2.56 mg/l
pH	6.75 S.U. (Minimum)	6.78 S.U. (Maximum)

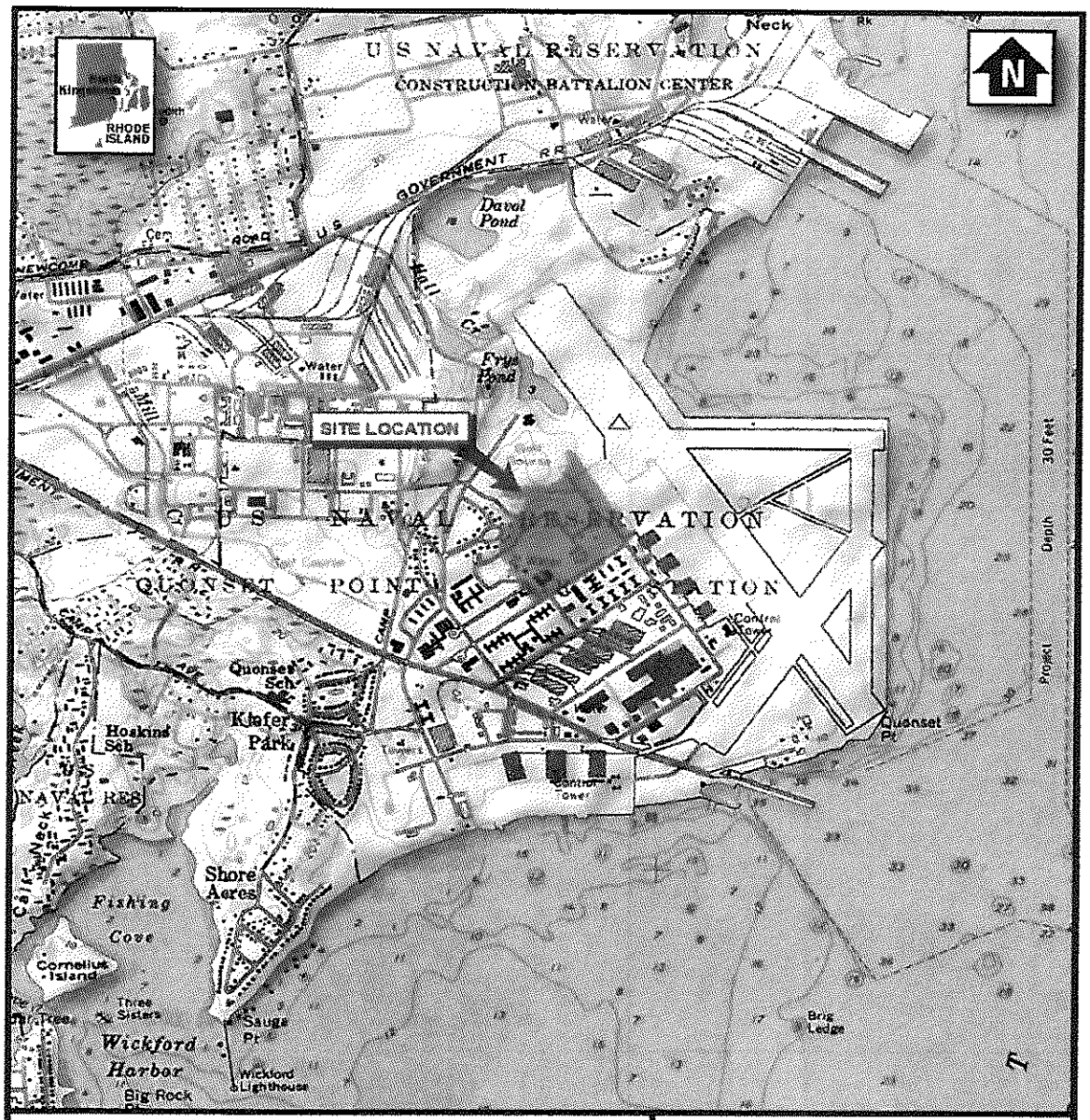
[1]Data represents the mean of the monthly average data from December 2009 through September 2014.
[2]Data represents the mean of the daily maximum data from December 2009 through September 2014.

ATTACHMENT A-2

RHODE ISLAND AIR NATIONAL GUARD, 143RD AIRLIFT WING

SITE LOCATION MAP

NPDES PERMIT
RIANG 143rd AW Location on Topographic Map



0 2000
Approximate Scale Ft

0 1
Approximate Scale MILE

1:24000
BASE CREATED WITH TOPO © 1996 WILDFLOWERS PRODUCTIONS,
www.topo.com 7.5' USGS TOPOGRAPHIC MAPS

TRC
21 Griffin Road North
Windsor, CT
Phone: 860.298.9692

RI ANG 143RD AIR LIFT WING
ONE HERCULES DR., NORTH KINGSTOWN, RI

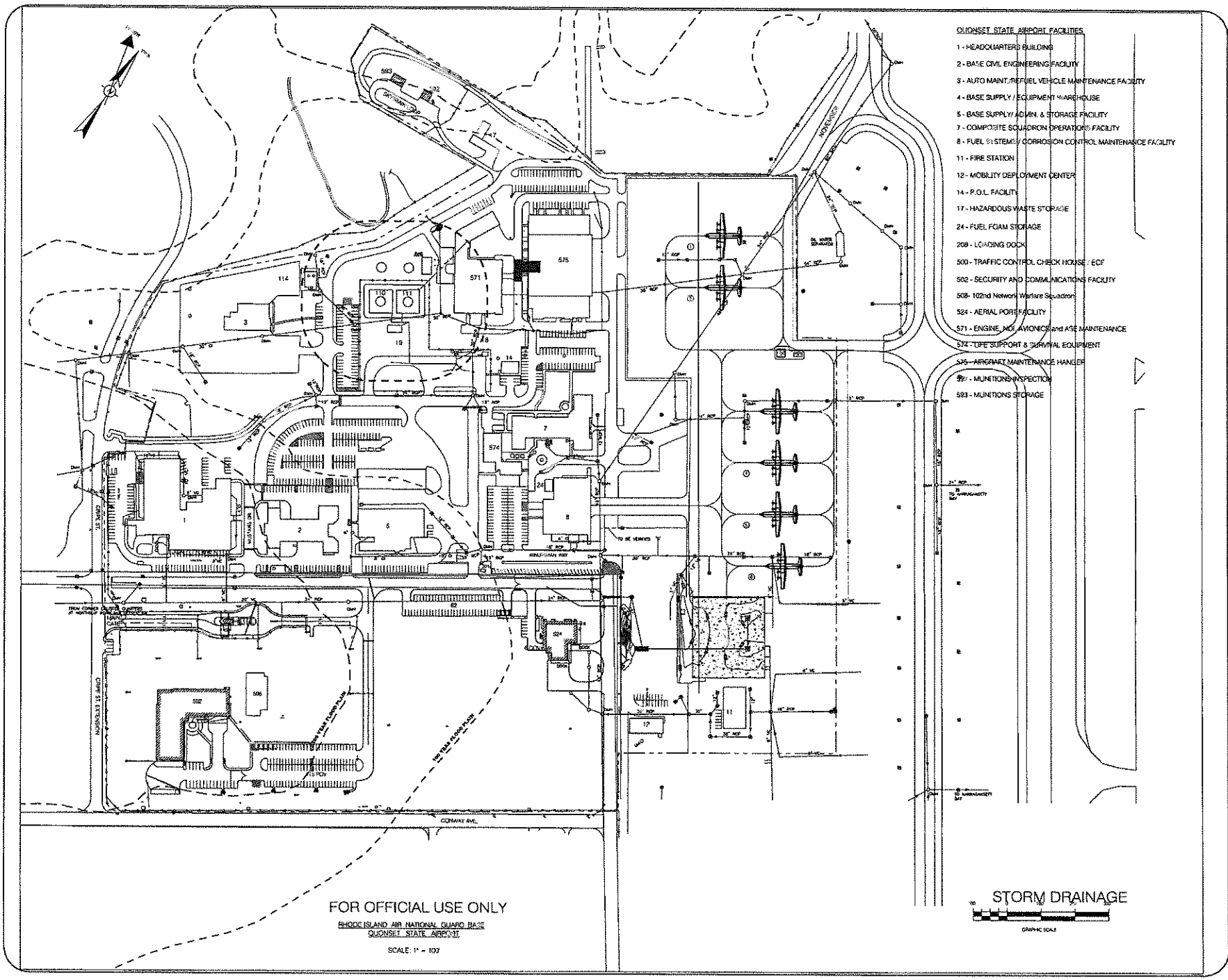
FIGURE 1-1
SITE LOCATION MAP

DATE: 11/2013 | PROJECT NO. 207546.0000.0000

ATTACHMENT A-3

RHODE ISLAND AIR NATIONAL GUARD, 143RD AIRLIFT WING

SITE PLAN



143rd AIRLIFT WING

BASE UTILITY PLAN

RHODE ISLAND AIR NATIONAL GUARD

QUONSET STATE AIRPORT, NORTH KINGSTOWN, RI

143rd CIVIL ENGINEERING SQUADRON

G-3

PART II
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DEFINITIONS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with Rule 12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-3961, (401) 222-6519 or (401) 222-2284 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in Rule 14.18 of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under Rule 14.05 of the RIPDES Regulations.

(3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 291 Promenade Street, Providence, Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with Rules 15 and 23 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of Rule 49 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. °C	temperature in degrees Centigrade
Temp. °F	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
$C1_2$	total residual chlorine