



**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director



\*1100000120110408\*

GREENE

WRIGHT PATTERSON AFB

REYNOLDS, JOSEP | 2011/04/08



Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

April 19, 2011

Mr. Mark Mays  
88 ABW / CEA  
1450 Littrell Road, Building 22  
Wright Patterson Air Force Base, Ohio 45433 - 5209

**RE: Correction to RECONNAISSANCE INSPECTION dated April 8, 2011, Wright Patterson Air Force Base (WPAFB), Permit Number 11O00001\*ED, and 11N00156\*ED.**

Dear Mr. Mays:

On March 30, 2011 a representative of the Ohio EPA (Mr. Joe Reynolds) conducted a Reconnaissance Inspection of the storm water system at WPAFB, Greene and Montgomery Counties. The inspection was conducted as part of the National Pollutant Discharge Elimination System (NPDES) permit renewal process for the facility.

The inspection report is attached for your review. There are six items that require a response. Please provide a written by the dates noted. If you have any questions regarding the report, please feel free to contact Mr. Reynolds at (937) 285 - 6097.

Sincerely,

Martyn Burt, Environmental Supervisor  
Division of Surface Water

cc: Colonel Duke Hazdra, WPAFB  
Jan Ferguson, WPAFB  
Zachary Olds, WPAFB  
Treva Bashore, WPAFB  
Emily Erdei, WPAFB



State of Ohio Environmental Protection Agency  
Southwest District Office

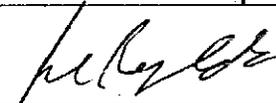
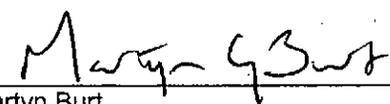
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
11000001*ED	OH0010243	3/30/2011	R	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Department of the Air Force 88 ABW/CEA 1450 Littrell Road, Building 22 Wright Patterson AFB, Ohio 45433 - 5209	9:00AM	4/1/2011
	Exit Time	Permit Expiration Date
	12:30PM	9/30/2014
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Colonel Duke Hazdra, Zack Olds, and Emily Erdei	(937) 257 - 9009	
Name, Address and Title of Responsible Official	Phone Number	
Mark Mays, Chief Asset Management Division 88 ABW/CEA 1450 Littrell Road, Building 22 Wright Patterson AFB, Ohio 45433 - 5209		

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	N	Flow Measurement	N	Pretreatment
N	Records/Reports	N	Laboratory	N	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	N	Sludge Storage/Disposal	N	Other
N	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See attached report.

Inspector	Reviewer
 Date 4/19/2011	 Date 4/19/11
Joe Reynolds Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

## WPAFB Inspection Findings

WPAFB has two individual National Pollutant Discharge Elimination System (NPDES) permits. Permit number 11O00001 is for storm water discharges from various areas on the base (coal fired power plants, ramp and runway areas, scrap and demo yards, testing labs and offices, and an aircraft survivability test area). As part of today's reconnaissance inspection we stopped by the following outfalls: 003, 004, 005, 007, 013, 014, 017, 018, 019, 021, 022, and 023. These outfalls have individual monitoring requirements due to a higher potential for storm water exposure to pollutants. Other storm water outfalls covered by the permit include: 001, 002, 006, 012, 015, 016, and 020.

WPAFB also holds NPDES permit number 11N00156 for a ground water pump and treat system located near landfill 5. There are two treatment systems at this location. The primary treatment system is an air stripper which includes (2) three chamber aeration units with lamella clarifiers. Iron removal chemicals are added prior to the system. The system is operating at 600 gpm, (33 minute detention time) 24 hours per day, 7 day per week. A second packed tower, Temporary Air Stripper (TAS) unit, is also located at the site as a back-up. Both units can discharge to either the Mad River directly through outfall 001 or Twin Lakes (and subsequently the Mad River) through outfall 003. Currently all flow is going to Twin Lakes.

The base just completed a cross connection study. From 2002 to 2009 over 100 buildings were surveyed for cross connections. On October 7, 2010 a final cross connection report and certification was provided to the agency.

Outfall 004 receives drainage from the north central area of the base. This area is primarily offices and research labs. This outfall also receives drainage from a limestone outcropping along route 444. The outcropping is contributing solids to the outfall. Due to the limited exposures to industrial activities the base would like to reduce sampling at this outfall to the parts IV, V, and VI of the permit. The same argument is being presented for Outfall 019, west ramp and aircraft support facilities.

WPAFB is in the process of installing automatic samplers at most of the outfalls with monthly monitoring. The samplers will be activated by rain gauges located on the sampler. The gauge will notify the sampler when one tenth of an inch of rain is gathered. The sampler will then be set to activate, at a delayed time if necessary, to collect the first flush.

## WPAFB Inspection Findings (continued)

Between January 1, 2010 and December 31, 2010 WPAFB reported one suspended solids violation (outfall 021), and one pH violation (outfall 018).

### Facility Inspection

Outfall 017, flight line and fuel farm drainage. This sampling point is downstream at a road culvert (corrugated, approx. 72"). The creek water was clear. There were no sheens, foam, or sediment noted. A small amount of white oil boom stuffing was noted on the bank. An automatic sampler and outfall sign has been installed at this location.

Outfall 019, west ramp and aircraft support facilities. This area drains maintenance support buildings. There are no deicing, or outside maintenance activities in this area. The water in the receiving channel was clear. No sheens or foam were noted. The channel contained a lot of algae. This channel drains to Bass Lake. The final outfall sign is perpendicular to the channel. The sign would be more visible if it faced the lake. An automatic sampler is being installed at this location.

Outfall 018, west ramp fueling and deicing. This ramp is where the plane deicing occurs. Deicing chemicals are vacuumed up. Deicing areas are sloped away from a trench drain that is used to carry storm water from the ramp. The water was clear. A scum was noted on the surface. The scum behaved like oil, when disturbed it reformed. A sulfur type odor was noted in this area. An outfall sign was located along the path that leads over to this outfall. An automatic sampler is being installed at this site.

Outfall 022, coal pile (building 20774). This outfall includes a storage and treatment system for storm water that contacts the coal piles. Concrete basins are used to store storm water (10 year, 24 hour storm). This water is then run through a pH adjustment system prior to discharge. There are plans to expand the storage volume this summer. Also a source of ground water flow, from the stream tunnels, is scheduled to be removed this summer. This plant burns natural gas during the summer to provide steam year round for various base uses.

## Facility Inspection (continued)

Outfall 004, north central area, includes offices and research labs. This outfall also receives drainage from areas B and J. The outfall is down gradient from a large limestone outcropping along route 444. The outcropping is highly eroded and is believed to be a source of solids loading to the outfall. The water was clear. No scum or sheens. The channel had a lot of gravel and grayish white sediment. Zach Olds reports that an outfall sign has been placed by the river. An automatic sampler is awaiting hook-up at the site.

Outfall 003, east central section area B, includes offices and testing labs. There is a large construction project in this area (the ITC Complex) that is contributing construction storm water run-off and dewatering water. The water column at the outfall was clear. The stream bottom (at the outfall channel) was sediment laden.

Outfall 013, east ramp fueling and aircraft maintenance. The creek water was clear. No sheens, foam, or sediment deposits. The creek bottom is grave with attached algae on the rocks. An automatic sampler is scheduled for installation at this location later this summer. An outfall sign has been installed.

Outfall 007, C.E. scrap yard and non contact cooling water. The scrap yard is located on old landfill number 4. There are no drains in the scrap yard. The drainage travels by overland flow to a storm pipe. Outfall 007 is a 36" concrete tile located across the road. The creek water was clear. The creek bottom was covered with sediment. There is an outfall sign near the outfall. This outfall does not have an automatic sampler. There is a question concerning the ultimate drainage point for the scrap yard. An unnamed tributary of Hebble Creek may be the actual receiving stream. This tributary had a rust coloring on its bottom. Dye testing may be needed to determine the drainage outlet.

Outfall 005, DRMO scrap yard. The creek water was clear. Some deposits of grey sediment were noted. There were no sheens or foam. A smell of fuel was noted in the area near the outfall. An automatic sampler and sign are located at this outfall.

Outfall 021, coal pile run-off (Building 31240). The site is set-up to collect drainage from the coal storage areas. There is a treatment system that is used to settle solids (two concrete tanks). The water from the tanks is pumped through a pH adjustment system (addition of potassium hydroxide) prior to discharge into the swale next to route 444. The outlet pipe had a small pool of clear water. The grass swale was dry. Black staining was noted at the outfall and in the swale along route 444. Coal solids were noted on the ground near the shaker house. The outfall sign is on the inside of a fenced area. It is not visible to the public traveling along route 444.

## Facility Inspection (continued)

Outfall 023, aircraft survivability test area. This outfall is located in a storm basin down the hill from the test area on base. It is after an oil water separator and prior to discharge to an unnamed tributary that discharges through outfall 003. The water in the basin was clear. No sheens, foam or odors. There is an automatic sampler located on this outfall. Samples are collected prior to tie-in to the storm system tributary to outfall 003. Some BTEX compounds have been detected in samples at this outfall. Consideration is being given to the addition of a carbon absorption treatment system upstream of the outfall.

### Items Requiring a Response

1. During the inspection of outfall 021 (coal pile run-off, building 31240) a black residue was noted in the outfall channel and along route 444. The discharge of substances in amounts that will settle to form objectionable sludge deposits is in violation of Part III, item 2 of your NPDES permit. A written response detailing the actions you propose to take to eliminate these discharges along with a time line for implementation must be submitted to this office by no later than July 8, 2011.
2. During the inspection of outfall 018 (west ramp fueling deicing) a scum was noted on the water surface at the outfall and an odor (sulfur like) was noted. Please provide a brief written response detailing any possible sources causes for the condition noted, and any follow-up action (as deemed necessary) by no later than June 6, 2011.
3. I understand the base is planning on expanding the storage volume for the water treatment system at the coal plant (building 20774). A Permit to Install application and detailed plans will need to be submitted to Ohio EPA for review and approval prior to the initiation of this work.
4. During the inspection of outfall 003 (east central section, area B) a large amount of sediment was noted at the outfall. Please provide a written follow-up detailing the findings as to the source of this sediment and the actions being taken to eliminate it. This response must be submitted by no later than June 6, 2011. The Ohio EPA construction storm water group would be willing to do a site inspection upon request.

## Items Requiring a Response (continued)

5. There are questions concerning the sampling location for outfall 007 (C.E. scrap yard & non-contact cooling water). The outfall location(s) for the drainage from the scrap yard as well as any non contact cooling water sources will need to be identified. If it is determined that the outfall location is incorrect the base's NPDES permit will need to be modified to reflect the new location(s). A written summary detailing the findings of this investigation must be submitted by no later than July 8, 2011.
  
6. During the inspection a request was made to move the monitoring for outfalls 004 and 019 to the parts IV, V, and VI requirements of the permit. This request is based upon limited industrial exposure. A review of monthly operating report data from January 1, 2009 through December 31, 2010 has revealed no violation at either outfall. Based upon the inspection findings and discharge monitoring report date, the Ohio EPA would be willing to review a request to change the monitoring for these two outfalls. As part of this proposed change an NPDES permit modification request (see attached) will need to be submitted to the district office. This request can also include any potential changes to the location of outfall 007

