



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

September 6, 2013

Cincinnati Thermal Spray  
Attn: Mr. Scott Paschke  
5901 Creek Road  
Cincinnati, OH 45242

**RE: Notice of Violation  
Cincinnati Thermal Spray – 5901 Creek Road, Hamilton County/ CEI Report  
Industrial Storm Water Permit – Ohio EPA Facility Number 1GR00199\*EG**

Dear Mr. Scott Paschke:

On August 29, 2013, I conducted a compliance evaluation inspection (CEI) of the Cincinnati Thermal Spray facility located at the above-referenced address. The purpose of the inspection was to determine compliance with the facility's industrial storm water National Pollutant Discharge Elimination System (NPDES) general permit. This facility has a primary Standard Industrial Classification System (SIC) code of 3479 and is required to comply with the site-specific requirements of subsector AA2 of the storm water permit, as well as the general requirements. Mr. Sheldon Sparks and you were present during the inspection process, which included a review of the storm water pollution prevention plan (SWP3) and a facility walk-through.

**Non-Compliance with the Industrial Storm Water NPDES Permit**

Cincinnati Thermal Spray applied for coverage under the industrial storm water NPDES general permit on February 10, 2012, but it appears that the company has not been complying with several of the requirements of the permit; such as completing an updated storm water pollution prevention plan (SWP3). Some of the salient features of the storm water permit (which should be part of the SWP3) include, but are not limited to:

- Quarterly routine inspections with associated inspection reports
- Quarterly visual inspections with associated inspection reports
- Comprehensive annual site inspections with associated reports
- Sampling at storm water outfalls

**By no later than December 6, 2013, Cincinnati Thermal Spray must complete an updated SWP3 for the facility and implement the best management practices, inspections and all other requirements of the storm water permit. A copy of the SWP3 must be submitted to this office by the same date.**

I have included the following hyperlinks to assist you in updating your SWP3 and site-specific storm water program:

Industrial general storm water permit web page –  
[http://epa.ohio.gov/dsw/permits/GP\\_IndustrialStormWater.aspx](http://epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx)

Industrial SWP3 guidance –  
[http://www.epa.gov/npdes/pubs/industrial\\_swppp\\_guide.pdf](http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf)

Industrial storm water monitoring and sampling guide –  
[http://www.epa.gov/npdes/pubs/msgp\\_monitoring\\_guide.pdf](http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf)

How to collect a grab sample –  
<http://www.youtube.com/watch?v=oWKdonc9iDw&feature=youtu.be>

Electronic discharge monitoring report submission system (eDMR) –  
<http://epa.ohio.gov/dsw/edmr/eDMR.aspx>

### **Non-Contact Cooling Water**

During the inspection, it was also noted that Cincinnati Thermal Spray has an unpermitted non-contact cooling water discharge to waters of the State. This is a violation of Ohio Revised Code 6111.04 “Acts of Pollution Prohibited” and Ohio Administrative Code 3745-33-02 “Ohio NPDES Permit Required.

By no later than October 25, 2013, ownership of Cincinnati Thermal Spray must complete one of the following two items:

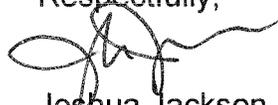
- Submit the following items to Ohio EPA: NPDES application forms 1; 2E; an antidegradation addendum; and a check for \$200 made payable to “Treasurer, State of Ohio”. All of the application forms must be fully completed prior to submittal (blank forms are attached to this letter for your convenience). These applications would be for an *individual* NPDES permit to cover the non-contact cooling water discharge.
- It is likely that the discharge of non-contact cooling water may be eligible for coverage of the non-contact cooling water NPDES *general* permit. There are several advantages to obtaining coverage under a NPDES general permit instead of an individual NPDES permit, such as: simplified one-page application form, the one-page application form doesn't require the inclusion of effluent data, Ohio EPA processing time is reduced, allowing quicker review time, permit consistency with other similar facilities, permit requirements are available prior to applying, and the annual discharge fee may not apply.

I have included a hard copy of the one-page application form (Notice of Intent or NOI) and the fact sheet for the non-contact cooling water permit so that you can determine whether the discharge is eligible. If the discharge is eligible for coverage, a completed NOI form and a check for \$200 made payable to "Treasurer, State of Ohio" must be submitted to Ohio EPA.

Here is a hyperlink to the Ohio EPA Division of Surface Water web page for the non-contact cooling water NPDES general permit –  
[http://epa.ohio.gov/dsw/permits/GP\\_NonContactCoolingWater.aspx](http://epa.ohio.gov/dsw/permits/GP_NonContactCoolingWater.aspx)

Thank you for the time extended during the inspection process. If you have any questions, please feel free to contact me by phone at (937) 285-6342 or by email at [joshua.jackson@epa.ohio.gov](mailto:joshua.jackson@epa.ohio.gov).

Respectfully,



Joshua Jackson  
Environmental Specialist II  
Division of Surface Water

JJ/tb

ec: Sheldon Sparks, Cincinnati Thermal Spray

Enclosures

**Industrial Storm Water Compliance Evaluation Inspection**

Name of Facility: Cincinnati Thermal Spray

Address: 5901 Creek Road, Cincinnati, OH 45242

Permit Number: 1GR00199\*EG      Applicable Permit Sector: AA2

Date of Visit: 08/29/2013      Time Started: 9:30 a.m.      Time Ended: 10:45 a.m.

Facility Representative(s): Scott Paschke – General Manager, Sheldon Sparks – Manufacturing Manager

OEPA Inspector: Joshua Jackson

SWP3:

- A. Did the facility representative produce an SWP3?      **Yes**
- A1. Did it include a site map?      **Yes**
- A2. Did it include schedules and procedures for the quarterly routine facility inspections?      **No**
- A3. Did it include schedules and procedures for the comprehensive annual facility inspection?      **No**
- A4. Did it include schedules and procedures for the quarterly visual assessment of storm water discharges ?      **No**
- A5. If benchmark monitoring is required, does the SWP3 describe how and when that will be done?      **No**

Inspection Records:

- B. Were inspection records available?      **No**

Comments:

Site Observations:

- C. Are materials stored exposed to weather?      **Yes**  
If Yes, list materials: Dust collection units for the thermal spray process are located outside. In general the area was relatively clean, but there is a potential for polluted runoff if good housekeeping techniques are not maintained.

- D. Are there any structural storm water management practices used onsite? **No**
  
- E. Number of outfalls from sit/number inspected: Two locations for storm water run-off on the east side of the property and two catch basins on the north side of the property. It appears there is more potential for storm water contamination at the two locations on the east side of the property due to the dust collection.
  
- G. Did any show evidence of pollutants discharged in the storm water? **No**
  
- H. Other observations/comments: **see cover letter**

## Ohio Environmental Protection Agency

## Fact Sheet for

## National Pollutant Discharge Elimination System (NPDES)

General Permit for Discharges of  
Non-Contact Cooling WaterI. Background

The federal Water Pollution Control Act [also referred to as the Clean Water Act (CWA)], which was enacted in 1972, provides that the discharge of pollutants to waters of the United States from any point source is unlawful, unless the discharge is in compliance with a NPDES permit. Many commercial and industrial entities have the need to discharge wastewater characterized as “non-contact cooling water” from the operation of their facilities. Non-contact cooling water is defined as wastewater which does not come into contact with the process operations of a facility, and is used only to convey heat from the facility. U.S. EPA states that non-contact cooling water is used to reduce temperature and does not come into direct contact with any raw material, intermediate product, waste product (other than heat), or finished product. The primary concern regarding the discharge of non-contact cooling water is ensuring that waste heat conveyed to surface waters of the State does not result in violations of Ohio’s water quality standards.

Ohio EPA has elected to renew the existing statewide general permit authorizing the discharge of non-contact cooling water to waters of the State. Dischargers which meet the eligibility requirements may apply for coverage this NPDES general permit, instead of seeking coverage under an individual NPDES permit. The two primary conditions determining eligibility are: 1) the critical low flow in the stream which will receive the discharge; and 2) ensuring that the discharge consists of only non-contact cooling water. Eligibility is discussed in more detail in the next section of this document.

II. Description of General Permit Coverage

The general permit is proposed for a duration of five years. In order to be eligible for coverage under this general permit, the discharge flow volume must be no greater than five (5) percent of the critical low flow in the receiving

stream<sup>1</sup>, which results in a dilution ratio of at least 20 to 1. Experience has shown that discharges of non-contact cooling water which meet this criterion, have no significant thermal effect on aquatic life, and Ohio surface water temperature standards will be maintained. Non-contact cooling water must be free from contaminants (other than heat), and must not come into contact with wastewater potentially containing pollutants.

The following types of discharges are not eligible for coverage under this general permit:

- cooling water contaminated with metals, ammonia, organic chemicals, or total dissolved solids;
- storm water mixed with non-contact cooling water;
- cooling tower blowdown, boiler blowdown, and air compressor condensate, each of which may be contaminated with pollutants;
- wastewater discharges associated with non-contact cooling water that the Director has determined to have the reasonable potential to cause or contribute to an exceedance of Ohio Water Quality Standards;
- non-contact cooling water discharges containing chemicals or water treatment additives that have not been approved by Ohio EPA;
- wastewater discharges in which the total concentration of volatile organic compounds is greater than 100 ug/l; and
- wastewater discharges lasting more than two hours per day in which the total residual chlorine concentration is greater than 0.038 mg/l, unless de-chlorination equipment is installed.

### III. Application for Coverage

Each facility seeking coverage under this general permit must submit a Notice of Intent application (NOI). Federal regulations found in 40 CFR 122.21(a) exclude persons covered by general permits from requirements to submit an application for an individual permit. NOI requirements are intended to establish a mechanism that can be used to establish a clear accounting of the number of permittees covered by the general permit, the identities, locations, mailing addresses, and nature of discharge. The NOI application form and instructions for completing the form are available on the following internet website by clicking on "Applying for Coverage":

<http://www.epa.ohio.gov/dsw/permits/gpfact.aspx>

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<sup>1</sup> The critical low flow is defined as the minimum 7-day average flow, with a recurrence interval of 10 years. Statistically, the 7Q10 flow, or the 7-day 10-year low flow would be expected to occur once every ten years.

Completed NOI applications must be submitted to the following address:

Ohio Environmental Protection Agency  
Office of Fiscal Administration  
P.O. Box 1049  
Columbus, Ohio 43216-1049

Individuals with an existing discharge who intend to obtain coverage for wastewater discharges under this general permit shall submit an NOI form within 45 days of the effective date of this permit. An applicant will not be covered under the general permit until they receive written notification from the Director of Ohio EPA that a discharge is authorized under the general permit. Dischargers who fail to obtain coverage under the general permit and are not otherwise covered by a NPDES permit are in violation of Ohio Revised Code (ORC) 6111.

#### IV. Significant Changes in the Non-Contact Cooling Water General Permit

A number of significant changes have been made to the general permit for non-contact cooling water, and these changes are discussed below.

*Eligibility of New Discharges.* The requirements of anti-degradation have been applied to the renewal of this permit in order to allow new discharges (i.e., those discharges not currently covered under an individual or general NPDES permit) to obtain coverage under this general permit. Assuming a 20 to 1 dilution ratio, calculations show that discharges under this permit meet an exclusion in accordance with the anti-degradation rule, and therefore a detailed technical review of alternatives and social and economic issues related to the degradation is not required.

*Eligibility of Geothermal Heating and Cooling Systems.* Language has been included which explicitly allows geothermal heating and cooling systems to be covered under the permit, providing the requirements for discharge flow rate have also been met.

*Discharge Flow.* Language has been added to indicate explicitly that the total discharge flow from all outfalls must be used to compare with the critical low flow in determining eligibility under the general permit.

*Water Treatment Additives.* References to chemicals or water treatment additives have been removed from the permit section which lists the types of discharges which are eligible for coverage under the general permit. Instead, language addressing this issue has been incorporated in two locations: 1) under limitations to coverage, "...non-contact cooling water discharges containing chemicals or water treatment additives that have not been

approved by Ohio EPA” are now explicitly prohibited from coverage. Also, language has been added to Part IV of the permit which provides the steps which must be followed in order to obtain approval for water treatment additives.

*Section 316(b) Compliance.* Section 316(b) of the Clean Water Act requires that facilities withdrawing water from surface waters for cooling purposes must use the “best technology available” to minimize adverse environmental impact resulting from the operation of the water intake structure. The general permit requires that one of two conditions must be satisfied in order to comply with Section 316(b) requirements:

- the water body where the cooling water is obtained does not include threatened or endangered species in the vicinity of the cooling water intake structure, the design intake flow is less than 5 percent of the mean annual flow of the water body, and the design intake velocity is less than 0.5 feet per second; or
- the facility employs a re-circulating cooling system and re-circulates at least 95 percent of the cooling water.

*Volatile Organics.* The general permit now requires that the total concentration of volatile organic compounds discharged under this permit must be less than 100 ug/l.

*Additional Information Submitted with the NOI.* Supplementary information must now be submitted with the NOI to characterize the discharge:

- For applicants who obtain water directly from ground water sources, the results of a priority pollutant scan, including metals and volatile organic compounds;
- If the applicant obtains water from a public water supply source, the results of a metals analysis of the wastewater discharged; and
- For applicants discharging more than two hours per day, monitoring results for total residual chlorine.

*Maximum Total Residual Chlorine (TRC) Concentration.* The maximum discharge concentration of 0.4 milligrams per liter (mg/l) has been removed. Individual NPDES permits allow a discharge concentration for TRC no greater than 0.038 mg/l for discharges greater than or equal to two hours per day in duration, and the NCCW general permit now requires compliance with this more restrictive limit. If the discharge exceeds this new requirement, coverage under the permit may be granted (with respect to this requirement only) if the applicant agrees to install de-chlorination equipment within six months.

*Part III Effluent Tables.* The previous non-contact cooling water general permit (permit # OH000003) has one effluent table which applies to all discharges regardless of the discharge flow rate, even though the footnotes to the table instruct the permittee to use three different monitoring frequencies based upon the average flow rate. This renewal of the general permit includes three effluent tables – one for each category of flow rate and associated monitoring frequency. The permittee and Ohio EPA will select the appropriate effluent table to be associated with each facility outfall to be covered under the general permit. This approach should be easier for the permittee (especially those reporting electronically), and will allow Ohio EPA to track permit compliance more effectively.

*Monitoring for Total Residual Oxidants (TRO) and TRC.* Monitoring for these parameters have been added to the effluents tables in Part III of the permit. TRO and TRC must be monitored only when the facility uses approved water treatment additives which release bromine or chlorine, respectively. This addition is consistent with the approach used for individual NPDES permits when similar types of water treatment additives are included in the discharge.

#### V. Guidance for Applicability

This section is intended to provide guidance for entities in determining the applicability of their discharge to be covered under the non-contact cooling water general permit. Coverage under this permit requires that the wastewater is uncontaminated, which is further explained below.

*Common Contaminants.* As explained in the definition of non-contact cooling water in Part VI of the general permit, the permittee must ensure that the cooling water being used is free from metals, ammonia, organics, and total dissolved solids in order to meet the requirement of an uncontaminated discharge. These pollutants are of concern because they may result in toxicity and oxygen demand in the receiving stream. If the applicant is unsure with regard to the presence or concentration of pollutants in the source water or the final discharge, inexpensive tests can be used to make this determination.

*Testing for Contaminants.* A test for chemical oxygen demand (COD) will show the level of organics and certain inorganics (such as sulfides, sulfites, ferrous iron, chlorides, and nitrites) amenable to chemical oxidation. An organic carbon determination in a total organic carbon (TOC) analysis can also be helpful to identify the level of pollutants in source water. If the cooling water effluent shows a COD value exceeding 50 mg/l and a TOC value exceeding 20 mg/l, it is suggested that entities investigate the source water to reduce the level of contaminants, or apply for coverage under an individual NPDES permit.

*Low Flow Rate of Receiving Stream.* Eligibility for coverage under this general permit includes the requirement that the total discharge from the facility is less than five percent of the critical low flow (or 7Q10 flow) of the receiving stream. Ohio EPA can provide assistance in determining the 7Q10 flow applicable to a discharge, if necessary. (The 7Q10 flow is further defined on the first page of this factsheet.)

*Cooling Tower Blowdown, Boiler Blowdown, and Condensate.* While these types of discharges are closely related to non-contact cooling water, they are not covered under this general permit due to the likelihood of contamination. Cooling tower blowdown is routinely mixed with additives which contain pollutants, boiler blowdown often contains high levels of total dissolved solids, and air compressor condensate is frequently contaminated with oil.

A copy of the draft permit is available on the Ohio EPA, Division of Surface Water website:

[http://www.epa.ohio.gov/dsw/permits/GP\\_NonContactCoolingWater.aspx](http://www.epa.ohio.gov/dsw/permits/GP_NonContactCoolingWater.aspx)

## Division of Surface Water - Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General NPDES Permit

*(Read accompanying instructions carefully before completing this form.)*

*Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment C of the NOI instructions for the appropriate processing fee.)*

**I. Applicant Information/Mailing Address**

<b>Company (Applicant) Name:</b>		
<b>Mailing (Applicant) Address:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip Code:</b>
<b>Contact Person:</b>	<b>Phone:</b>	<b>Fax:</b>
<b>Contact E-mail Address:</b>		

**II. Facility/Site Location Information**

<b>Facility Name:</b>		
<b>Facility Address/Location:</b>		
<b>City:</b>	<b>State: Ohio</b>	<b>Zip Code:</b>
<b>County(ies):</b>	<b>Township(s):</b>	
<b>Facility Contact Person:</b>	<b>Phone:</b>	<b>Fax:</b>
<b>Facility Contact E-mail Address:</b>		
<b>Latitude:</b>	<b>Longitude:</b>	<i>(For Construction &amp; Coal, must complete lat/long &amp; attach map)</i>
<b>Receiving Stream or MS4:</b>		

**III. General Permit Information**

<b>General Permit Number:</b> Choose an item.	<b>Initial Coverage:</b> <input type="checkbox"/>	<b>Renewal Coverage:</b> <input type="checkbox"/>
<b>Type of Activity:</b> Choose an item.	<b>SIC Code(s):</b>	
<b>Existing NPDES Permit Number:</b>	<b>ODNR Coal Mining Application Number:</b>	

**If Household Sewage Treatment System, is system for:**  new home construction or  replacement of failed existing system

Outfall:	Design Flow (MGD):	Associated Permit Effluent Table:	Latitude:	Longitude:
		Choose an item.		
		Choose an item.		
		Choose an item.		
		Choose an item.		

<b>Are These Permits Required?</b>	<b>PTI</b> Choose one.	<b>Individual 401 Water Quality Certification</b> Choose one.
<b>Isolated Wetland</b> Choose one.	<b>U.S. Army Corp Nationwide Permit</b> Choose one.	<b>Individual NPDES</b> Choose one.
<b>Proposed Project Start Date:</b>	<b>Estimated Completion Date:</b>	
<b>Total Land Disturbance (Acres):</b>	<b>MS4 Drainage Area (Sq. Miles):</b>	

**IV. Payment Information**

<b>Check #:</b>
<b>Check Amount:</b>
<b>Date of Check:</b>

For Ohio EPA Use Only	
Check ID (OFA): _____	ORG #: _____
Rev ID: _____	DOC #: _____

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

<b>Applicant Name:</b>	<b>Title:</b>
<b>Applicant Signature:</b>	<b>Date:</b>

