

TRANSACTAL
W060710

APPENDIX 5

Suggested Form for Notice of Intent (NOI) for the Noncontact Cooling Water General Permit

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Zinsser Co. Inc.		Type of Business: Paints, Varnishes and allied Products
Facility Location Address : longitude: 71 17' 22" wide latitude: 41 56' 22" N	Facility SIC codes: 2851, 2064	Facility Mailing Address (if not location address) 113 Olive Street Attleboro, Ma. 02703
b) Name of facility owner: Zinsser Co. Inc.		Email address of owner:
Owner's Tel #: (508) 222-3710 Owner's Fax #: (508) 226-5802		Owner is (check one): 1. Federal ____ 2. State ____ 3. Tribal ____ 4. Private ☒ 5. Other ____ (Describe)
Address of owner (if different from facility address)		
Legal name of Operator, if not owner: Donald Mikutei		
Operator Contact Name: Donald Mikutei		
Operator Tel Number: (508) 222-3710 Fax Number: (508) 226-5802		
Operator's email: donald.mikutei@zinsser.com		
Operator Address (if different from owner)		
d) Attach topographic map indicating the locations of the facility and the receiving water; all NCCW discharge points; upstream and downstream monitoring points. Map attached? yes		
e) Check Yes or No for the following:		
1. Has a prior NPDES permit been granted for the discharge? Yes ☒ No ____ If Yes, Permit Number: MAG250958		
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ____ No ☒		
3. Is the facility covered by an individual NPDES permit? Yes ☒ No ____ If Yes, Permit Number MAG250958		
4. Is there a pending application on file with EPA for this discharge? Yes ☒ No ☒ If Yes, date of submittal: 2005		

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: Ten Mile River

State Water Quality Classification: class B

Freshwater: yes

Marine Water: _____

b) Describe the discharge activities for which the owner/applicant is seeking coverage: Discharge to Ten Mile River is non-contact cooling water from a private well

c) **FOR MASSACHUSETTS FACILITIES ONLY:** Engineering Calculations: Submit the completed engineering calculation of the surface water temperature rise as shown in Attachment A of the General Permit. Check if attached: _____

d) Number of outfalls 3

*001 - no flow
003
004*

For each outfall:

e) What is the maximum daily and average monthly flow of the discharge? Note that EPA will use the flow reported here as the facility's permitted effluent flow limit. Max Daily Flow .65 mgd GPD Average Flow .31 mgd GPD

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 83 Average Temp. 70

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.3 Min pH 6.8

h) **FOR MASSACHUSETTS FACILITIES ONLY:** Is the source water of the NCCW potable water? Yes _____ No ✓ If Yes, EPA will calculate the Total Residual Chlorine limit for facilities located in Massachusetts.

i) Is the discharge continuous? Yes _____ No ✓ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) P
If (P), number of days or months per year of the discharge 16 and the specific months of discharge 12 months 16 days a month;
If (I), number of days/year there is a discharge _____

j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. 71 17 22' lat. 41 56' 22"; outfall 2: long. _____ lat. _____;
outfall 3: long. _____ lat. _____ (See http://www.epa.gov/tri/report/siting_tool)

k) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 1.39 cfs

Please attach any calculation sheets used to support stream flow and dilution calculations. See General Permit Attachment B for equations and additional information.

MASSACHUSETTS FACILITIES: See Part 3.4 and Appendix 1 of the General Permit for more information on ACEC.

Areas of Critical Environmental Concern (ACEC): Does the discharge occur in an ACEC? Yes _____ No ✓

If yes, provide the name of the ACEC: _____

need well metadata

3. NCCW Source Water Information. Please provide information about the NCCW source water, using separate sheets as necessary:

a) Indicate source of the NCCW (i.e., municipal water supply, private well, surface water withdrawal, groundwater):

Source: private well water

Name of Source Water: olive street well Attleboro Ma.

Is the source registered/permitted under MA Water Management Act or NHDES Water User Registration Rule (Env Wq 2202)?

Yes ☐ No ☒

If yes, registration number: _____

b) If source water is surface water:

i) Is it a freshwater river or stream Yes ☐ No ☒

ii) Is it a lake? _____ reservoir? _____

iii) Is it tidal river? _____ estuary? _____ ocean? _____

c) Is the source water groundwater? Yes yes No ☐ If yes, see Appendix 8 and submit effluent and surface water test results, as required in Part 5.4 of the General Permit.

d) Does the facility use both a primary and backup source of noncontact cooling water?

Yes ☐ No ☒

If yes, attach information that identifies and explains the primary and backup sources of noncontact cooling water for and how often the backup supply was used in last three years.

4. Best Technology Available for CWIS

Are you subject to BTA requirements at Part 4.2 of the General Permit? (Facility's discharge is covered by this General Permit and the facility withdraws noncontact cooling water from surface source water). Yes ☐ No ☒ If No, explain: Water comes from a private well

If YES, attach the facility-specific BTA description as required in Part 4.3 of the General Permit. For additional information and guidance, see Questions 13-23 of the NCCW Fact Sheet, posted at <http://www.epa.gov/region1/npdes/nccwgp.html>. Provide a map showing the location of each CWIS intake structure; NCCW outfall(s) and any CWIS feature referred to in the BTA description.

Include in your description:

- ☐ Measures to meet the General Permit Part 4.3.a general BTA requirements, including documentation that describes the facility's monitoring program for impinged fish and/or invertebrate; or the required alternative monitoring plan frequency and/or protocol
- ☐ A characterization of the source water body's aquatic life habitat in the vicinity of each CWIS during the seasons when the CWIS may be in use
- ☐ The attributes of the current CWIS
- ☐ Design measures of the CWIS
- ☐ Operation measures of the CWIS
- ☐ Historical occurrence of impinged fish for the past five years
- ☐ If applicable, a demonstration that the facility's intake rate is commensurate with a closed-cycle recirculation system
- ☐ Other components to reduce impingement and/or entrainment of aquatic life

4. BTA FOR CWIS CONTINUED:

Provide the following information for each CWIS to support your attached facility-specific BTA description.

Design capacity of the of the CWIS _____ MGD

Maximum monthly average intake of the CWIS during the previous five years _____ MGD Month in which this flow occurred _____

Maximum through-screen design intake velocity _____ feet/second (fps)

For facilities where the CWIS is located on a freshwater river or stream, provide the following information:

The source water's annual mean flow _____ cubic feet/second (cfs) as available from USGS or other appropriate source

The design intake flow as a % of the source water's annual mean flow _____ Attach calculations if equal to or less than 5% of annual mean flow.

The source water's 7Q10 _____ cfs. See Attachment B of the General Permit for more information on 7Q10 determinations.

The design intake flow as a percent of the source water's 7Q10 _____

5. Contaminant Information

If applicable, attach a listing of all non-toxic pH neutralization and/or dechlorination chemicals used, including chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the NCCW discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)).

6. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix 2, Part C, Step 4, of the General Permit. In addition, respond to the following questions.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes _____ No ☒
- b) Has any consultation with the federal services been completed? Yes _____ No ☒
- c) Is consultation underway? Yes _____ No ☒
- d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one):
 - a "no jeopardy" opinion _____ or written concurrence _____ on a finding that the discharges are not likely to adversely affect any endangered species or
- e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D or E) have you met? _____
- f) Attach a copy of the most current federal listing of endangered and threatened species from the USF&W web site listed in Appendices 2, 2.1 and 4

7. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ☒
- b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ☒ If yes, attach the results of the consultation(s).
- c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? _____

8. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

9. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the noncontact cooling water (NCCW) system; (2) the discharge consists solely of NCCW (to reduce temperature) and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product (other than heat) or finished product; (4) if the discharge of noncontact cooling water subsequently mixes with other wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for noncontact cooling water; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Zinsser Co. Inc.

Operator signature:



Title: EHS Manager

Date: 10/3/08

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

ATTACHMENT A of General Permit Continued

(3) Often, the facility discharge is given in units of gallons per day, or million gallons per day (mgd). Use the conversion factor of 0.645 mgd/cfs or 0.645 mgd per 1 cfs to convert from cfs to mgd.

Therefore, for this equation, we are assuming all of the waste heat from the facility is transferred to the river. The waste heat from the facility can either be calculated using the maximum change in temperature and the maximum effluent flow or it can be determined by plant engineering personnel.

EXAMPLE 1:

A facility has a maximum permitted flow rate of 1 mgd. The maximum amount of heat that needs to be rejected from the plant is 10,000 btu/hr. The 7Q10 of the river has been determined to be 325 cfs. What is the maximum calculated change in river temperature? The plant is located in a Massachusetts Warm Water fishery.

SOLUTION 1:

Since all of the heat rejected by the plant is assumed to be absorbed by the river, $Q_p = Q_r$ and $Q_r = C_p M_r \Delta T_r$ or $\Delta T_r = Q_r / C_p M_r$

$$Q_r = 10,000 \text{ btu/hr}$$

$$\text{Convert 325 cfs to mgd, } 325 \text{ cfs} \times 0.645 \frac{\text{mgd}}{\text{cfs}} = 209.6 \text{ mgd}$$

$$\Delta T_r = (10,000 \text{ btu/hr}) / (1 \text{ btu/lb}^\circ\text{F}) \times (24 \text{ hrs/day}) \times (\text{gal}/8.34 \text{ lbs}) / 209.6 \times 10^6 \text{ gal/day}$$

$$= 1.37 \times 10^{-4} ^\circ\text{F}$$

In this example, the facility has demonstrated that the receiving water will be protected. Therefore, no in-stream monitoring would be required.

EXAMPLE 2:

A facility has a maximum reported ΔT of 35°F. The maximum plant design is 1 mgd. The 7Q10 is determined to be 125 cfs. The plant is located in a Massachusetts Cold Water fishery.

SOLUTION 2:

$$\text{Convert 125 cfs to mgd, } 125 \text{ cfs} \times 0.645 \frac{\text{mgd}}{\text{cfs}} = 80.62 \text{ mgd.}$$

$$\Delta T_r = m_p / m_r \times \Delta T_p$$

$$= (1 \text{ mgd} / 80.62 \text{ mgd}) \times 35 ^\circ\text{F}$$

$$= 0.43 ^\circ\text{F}$$

$$\Delta T_r = \frac{0.2 \text{ MGD}}{0.9 \text{ MGD}} = 0.22 ^\circ\text{F}$$