Responses to Comments

Public Hearing on U.S. EPA's Objection to the Ohio EPA NPDES permit for the Dayton Power & Light J.M. Stuart Station NPDES Permit No. OH0004316

U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

September 28, 2011

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Disclaimer
This document contains summaries rather than verbatim comments received by the U.S. Environmental Protection Agency on the Public Hearing for the Objection to the draft NPDES permit for the J.M. Stuart Power Station power plant near Aberdeen, Ohio. All public comments on the objection, including transcripts from the public hearings, are included in the Administrative Record. The Administrative Record is available for review at the offices of EPA-Region 5 at 77 West Jackson Boulevard, Chicago, Illinois with an appointment. If you wish to view these documents, please contact Sean Ramach at 312-886-5284.

Preface
This document presents EPA's response to the comments received during the Public Comment Period for the Objection to the draft NPDES permit for the J.M. Stuart Power Station power plant near Aberdeen, Ohio. The Public Hearing on EPA's objection was held on March 23, 2011 and comments were accepted until April 29, 2011. The comments and EPA's corresponding responses are organized as shown in the Table of Contents. Preceding each individual comment/response grouping is a list of the document numbers to which it correlates, as shown in the following example:

Response 1.1	Document: 2

The document numbers relate to individual commenters. A table is provided at the beginning of the document to help readers find commenters and their affiliations, along with document numbers. EPA has also posted copies of the objection and the response to comments document on the EPA Region 5 Web site http://www.epa.gov/r5water/npdestek/dplstuart/. Please contact Sean Ramach at 312-886-5284 with any questions regarding EPA's response to comments.

Commenters and Their Affiliations

Commenter	Affiliation	Doc #	Response Nos.
JoAnne Rau, Director, Environmental Safety and Management	Dayton Power and Light Company	1,2	1.1, 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 3.3, A.1, A.3
Melody Dragoo	Citizen	3	4.1, 4.2, A.1, A.2, A.3, A.4, A.5
Earl Bush	Citizen	4	4.1, A.1
Paul Braasch	Citizen	5	2.3, 2.4, 4.1, A.1, A.3, A.6, A.7
Nachy Kanafer	Sierra Club	6,8	2.2, 2.3, 3.1, 3.4, 3.5, 4.1, 4.2, 4.3, A.1, A.4, A.6, A.7
Patrick Hudnall	Citizen	7	2.3, 3.2, 4.1, 4.2, A.1, A.2
Thom Cmar	Natural Resources Defense Council	8	2.2, 2.3, 3.1, 3.4, 3.5, 4.1, 4.2, 4.3, A.1, A.4, A.6

Acronyms, Abbreviations, and Symbols (Selective List)

DP&L	Dayton Power and Light Company
EPA	United States Environmental Protection Agency
OEPA	Ohio Environmental Protection Agency
CWA	Clean Water Act
NPDES	National Pollutant Discharge Elimination System
MW	Megawatts
LTMC	Little Threemile Creek
MGD	Million Gallons per Day
SGS	J.M. Stuart Generating Station
BIP	Balanced and Indigenous Population

I. Introduction

Objection

The U.S. Environmental Protection Agency Region 5 objected to the issuance of a National Pollutant Discharge Elimination System (NPDES) Permit for the Dayton Power and Light J.M. Stuart Generating Station (SGS) by the Ohio Environmental Protection Agency (OEPA) on September 29, 2010. EPA objected to the permit because it determined that there was an inadequate basis in the administrative record to support the proposed alternate thermal limitation of 11,000 Million British Thermal Units/Hour as assuring the protection and propagation of a balanced and indigenous population of shellfish, fish and wildlife in and on Little Threemile Creek (LTMC). Pursuant to 40 C.F.R. §123.44(e), EPA can hold a public hearing on a permit objection when there is a request by the State or substantial interest from the public. EPA determined to hold a public hearing regarding the objection and conducted the hearing on March 23, 2011 in Georgetown, OH at the Southern Hills Career and Technical Center. The public comment period associated with the hearing ended on April 29, 2011[1].

Facility

The DP&L SGS is located outside Aberdeen, Ohio on the Ohio River. SGS is a coal fired station with 4 units with a generating capacity of 2340 Megawatts (MW) that initiated operations in 1970. The facility can withdraw up to 900 Million Gallons per Day (MGD) of water from the Ohio River for cooling purposes and discharges to LTMC. EPA objected to the draft permit based on the thermal loading to LTMC from SGS's discharge. This discharge was authorized by a Clean Water Act § 316(a) demonstration submitted to Ohio EPA in 1976 and approved in1986.

Clean Water Act § 316(a)

NPDES permits must include either technology-based or water quality-based effluent limits for pollutants that have a reasonable potential to exceed water quality standards, with the more stringent limits governing. Section 316(a), however, authorizes the permitting authority to apply less stringent thermal effluent limitations from technology based and/or water quality-based effluent limitations (a "CWA § 316(a) alternative limitation"). Specifically, Section 316(a) authorizes the permitting authority to permit alternative, less stringent thermal effluent limits when it is demonstrated that the alternative limits "will assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on [the receiving water] ..." (referred to hereinafter as the "balanced indigenous population" or "BIP"). While economic and technological considerations are reflected in technology-based standards and water quality standard variances, the statutory test for a CWA § 316(a) variance is based solely on the stated biological considerations. The thermal effluent limitations in the draft permit for SGS are based on the original CWA § 316(a) demonstration approved in 1986.

[1] EPA regulations require that comment periods extend a minimum of 30 days which would have been April 7, 2011. In response to a request from the permittee, the comment period was subsequently extended until April 29, 2011.

Comments

EPA greatly appreciates the time, effort, information, and expertise that the commenters, including the permittee, have contributed to EPA's consideration to uphold, modify or withdraw the objection. EPA has given careful consideration to the comments and information it has received. The comments presented a wide range of viewpoints regarding the SGS and its thermal discharge. EPA received oral comments from 5 parties at the public hearing and received written comments from 3 parties during the public comment period. Some individuals that spoke at the public hearing provided written comments as well. This document provides EPA's responses to those comments received at the public hearing and during the public comment period.

II. Comments related to the Objection

Status of LTMC

Response 1.1	Document: 2

The Commentor states that the section of LTMC from the point of discharge by the SGS to the confluence with the Ohio River should be classified as a cooling water canal or should be considered part of the Ohio River. The commentor discusses the review of the use of LTMC as a receiving water body for the SGS discharge and the Ohio Department of Health's (predecessor agency to OEPA) involvement in the process of channelizing and filling in portions of LTMC. The commentor claims that as a result of this action, LTMC no longer directly discharged to the Ohio River, but discharged into the "cooling water discharge canal."

EPA Response

EPA has reviewed the materials submitted by DP&L regarding the claim that LTMC now discharges into the "cooling water discharge canal" instead of the Ohio River and that this section of LTMC should be classified as a "cooling water discharge canal." LTMC is a water of the U.S. A designation as a water of the U.S. is not affected by channelization or impoundment. Any authorization by the Ohio Department of Health to channelize or straighten LTMC does not change the status of this segment of LTMC. A series of letters (Attachments 10-13 to the comments provided by DP&L) indicate that each entity, Ohio Department of Health, EPA and DP&L, consistently referred to the discharge from the SGS as being to LTMC. Attachment 13, DP&L's application (November 8, 1971) to the Ohio Department of Health to discharge into waters of the State indicated that the body of water receiving the discharge was LTMC with the next largest receiving tributary being the Ohio River. EPA maintains its position that the receiving water body for the cooling water discharge from the SGS is, in fact, LTMC.

Response 1.2	Document: 2

The commentor also provides evidence from OEPA that wasteload allocations for pollutants other than thermal were calculated as direct discharges to the Ohio River. The commentor references language in the permit fact sheet that refers to the discharges into LTMC as into the backwaters of the Ohio River.

EPA response

Wasteload allocations are utilized in order to determine the mass of pollutant that can be discharged into a waterbody and maintain the designated and existing uses of that waterbody.

OEPA calculates wasteload allocations for both LTMC and the Ohio River to ensure that water quality standards are met in each waterbody. Given the flow velocity, flow volumes and residence time in LTMC of the discharge from SGS, it is appropriate to primarily consider the impact of the discharge from the SGS to the Ohio River when determining contribution to wasteloads. See Response 1.4 for discussion on the term "backwaters of the Ohio River."

Response 1.3	Document: 2

The commentor provides an additional rationale that Ohio water quality standards do not apply to this section of LTMC because the section in question is a private waterbody and part of a cooling water treatment system. The commentor states that historical documents demonstrate that this section of LTMC was specifically, expressly and purposefully designed to be a treatment works.

EPA response

EPA disagrees that any section of LTMC is a private waterbody or part of a treatment system. It is a water of the U.S. and a direct tributary to the Ohio River. There is no evidence that different or discrete water quality standards were developed and adopted by Ohio or approved by EPA for the section of LTMC from the point of discharge to the Ohio River that would change the designated use to a cooling water canal. Documents provided by DP&L indicate that the U. S. Army Corp of Engineers, not DP&L, owns the rights to the waterway up to the 493 foot mean sea level datum (DP&L retained the right to change the creek channel to suit their purposes). As further evidence, the facility did extensive sampling and analysis of the BIP within LTMC as part of its 316(a) demonstration in 1976. This sampling and analysis would have been unnecessary if LTMC was a private waterbody.

Response 1.4	Document: 2

The commentor also discusses the inundation of the lower portion of LTMC when the Meldahl Dam was constructed and states that this resulted in the relevant section of LTMC being a backwater of the Ohio River and not LTMC.

EPA Response

EPA stands behind its determination that the facility discharges to LTMC. While LTMC was inundated when the Meldahl dam was constructed, the natural watercourse and downstream flow of LTMC were not altered by that occurrence. The term "backwater" is defined as water held or pushed back by or as if by a dam or current. Backwater is also defined as a body of water (such

as an inlet or tributary) that is out of the main current of a larger body. Consistent with those definitions, LTMC can be an independent, flowing tributary and referred to as a backwater of the Ohio River. Defining the portion of LTMC that was inundated by the damming of the Ohio River as a backwater does not remove the uses assigned to that water body or change the water of the U.S. designation.

Alternate Discharge Scenarios

Commentors discuss proposed alternatives to discharge to LTMC and alternate methods to address the heatload in the discharge.

Response 2.1	Document: 2

One commentor discusses previous actions that were proposed to remove the thermal load into LTMC, but state that these efforts were prevented by numerous regulatory agencies including EPA. Specifically, a new discharge pipe to the Ohio River was proposed in 1971, but EPA objected based upon antidegradation concerns. In 1985, SGS was required under its NPDES permit to construct a new discharge canal to the Ohio River, but this requirement was abandoned after the US ACE, USFWS and ODNR raised concerns with the proposed project.

EPA Response

EPA has reviewed the available documents recording the historical efforts to address the thermal discharge including information submitted by SGS in its comments. EPA raised antidegradation concerns in a 1971 letter to the Ohio Department of Health, but in that letter clearly stated, that in EPA's opinion, the appropriate remedy to address the thermal load was to install cooling towers at the existing 2 units and unit 3, which was then under construction. In 1985, SGS proposed not to build a new discharge canal to the Ohio River, but to reroute upper LTMC to an adjacent tributary, thus maintaining the current discharge scenario. This relocation of lower LTMC is the action that the US ACE, USFWS and ODNR raised concerns over.

Response 2.2	Document: 6,8

Other commentors discuss the ability of SGS to install cooling towers at units 1-3 similar to the cooling tower installed on unit 4. This would provide approximately a 95 % reduction in both the thermal load and the use of cooling water at SGS. These commentors state that this would also lead to compliance with CWA § 316(b) requirements to minimize adverse environmental impact from the cooling water intake structure. The commentors reference the installation of cooling towers at hundreds of facilities around the nation and a technical review conducted for the First Energy Bayshore Power plant located in Oregon, Ohio.

EPA Response

EPA agrees with the commentors that cooling towers can achieve significant reductions in thermal loading and cooling water use as supported by the Technical Development Documents for EPA's Proposed 316(b) Rule for Existing Facilities and the Final 316(b) Rule for New Facilities. These documents are available on EPA's website at http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/index.cfm.

Response 2.3	Document: 5,6,7,8

The commentors discuss the lack of a detailed engineering analysis by SGS to justify the claims that the cost of requiring closed cycle cooling towers at SGS disproportionately outweighs the benefits. Commentors discuss the estimated cost of installing cooling towers at 200 million dollars and how this would equate to a 10 cent reduction in the 2.10 dollar dividend DP&L has paid for the last 4 years for each share of stock. One commentor believes that installing cooling towers would still provide for a reasonable rate for electricity, equitable return on investment to the shareholders and protection of the environment.

EPA Response

EPA has no information pertaining to any engineering analyses by SGS that evaluated the costs and benefits of installing cooling towers at the facility. EPA appreciates the cost information provided by the commentors, but CWA § 316(a) does not allow considerations of cost when determining whether alternate thermal limitations are appropriate.

Response 2.4	Document: 5

Commentors also address the contention that there is insufficient space at the facility to construct cooling towers. The commentors state that with creative engineering and reallocation of parking lots, space could be found to accommodate cooling towers.

EPA Response

The facility sits between the Ohio River, LTMC and U.S. Route 52. The facility has two large parking lots between the generating units and LTMC and adjacent property that was used to construct air emissions control technology. EPA also saw an adjacent property where the FGD silos were constructed. EPA has no information pertaining to any specific assessment for installation of cooling towers at SGS and how these spaces might be utilized. EPA's proposed

316(b) Existing Facility Rule references that relocation of parking is a low cost and acceptable impact to allow the installation of cooling towers at a facility. The rule is available at the following website: http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/index.cfm.

316(a) Alternate Limitations

Response 3.1	Document: 1,2,8

Commentors discuss the initial inclusion of the 316(a) alternate limitations in 1989 based upon a finding by Ohio EPA that all other alternatives were infeasible and that while thermal avoidance occurred during the summer, the benefit to the overall fishery during the majority of the year offset this period of thermal avoidance. One commentor further states that the basis for the 12,000 MBTU/Hr limitation included in the permit in 1991 was the maximum design operation of the plant's boilers (later reduced to the current limitation of 11,000 MBTU/Hr). Other commentors point to documents that indicate that the 316(a) limitation was a negotiated limitation based upon plant performance, and that Ohio EPA staff indicated that limitations of 104 degrees Fahrenheit or lower would be required to protect the aquatic community. Commentors state that EPA allowed Ohio EPA to issue the variance contingent upon the construction and maintenance of a public fishing area at the point where the discharge enters LTMC. Commentors further state that the permit has been renewed twice by Ohio EPA and EPA since the permit was first issued with the 316(a) alternate limitations and that SGS has discharged for over 40 years with the approval of EPA and Ohio EPA.

EPA Response

Section 316(a) of the CWA requires that a balanced and indigenous community of shellfish, fish and wildlife be protected and propagated in and on the waterbody that the discharge impacts. Section 316(a) and the federal regulations that implement this statute do not consider the cost or feasibility of alternatives that may be required to ensure that the requirements of Section 316(a) are met. Allowing a 316(a) alternate limitation to be established because technology or alternate methods of discharge are determined to be infeasible is not consistent with the requirements of the Clean Water Act. Furthermore, any alternate limitation that is proposed must be based upon the protection and propagation of the BIP, and cannot be based solely upon the maximum design operation of the plant's boilers. The maximum design operation thermal load provided in the 1976 § 316(a) demonstration was stated to be 7800 MBTU/Hr, not the 12,000 MBTU/Hr thermal load the facility was authorized to discharge in its permit. This represents a 54% increase over the anticipated thermal load to the receiving water body. EPA had reviewed the documents and recommendations on temperature limitations from Ohio EPA staff when it objected to the SGS permit.

The commentor implies that EPA approved the issuance of permits to the SGS and allowed Ohio EPA to issue the permit in 1991 as long as a public fishing area was constructed. EPA does not approve permits issued by a state, but can object where conditions in the proposed permit are not consistent or as stringent as those conditions that would be required by federal regulations and standards.

A § 316(a) alternate limitation must be requested to be renewed with each NPDES permit application. The decision to renew, or not renew, any § 316(a) alternate limitation is made independently of any previous decision, after reviewing the administrative record and any new information submitted by the permittee in its renewal request. 40 C.F.R. § 125.74 indicates that permittees should be prepared with studies based upon the permitee's actual operation experience. In reviewing the administrative record for this proposed permit reissuance, EPA found that the facility no longer operated as demonstrated in its 1976 § 316(a) submission and that there was evidence that the BIC was not being protected and propagated within LTMC. As such, EPA chose to object to the proposed permit.

Response 3.2	Document: 2,7

Commentors state that the 1976 § 316(a) demonstration affirmed that the SGS thermal discharge does not inhibit a balanced and indigenous population of organisms. The commentors also point to numerous studies conducted since 1976 that further support this assertion. One commentor questions what studies have been considered since the original study for LTMC.

EPA Response

EPA disagrees with the commentors. A review of the 1976 document clearly indicates that the authors of the report found that LTMC would be impacted by the thermal discharge. The study indicates that multiple trophic levels and component species would be not be adequately protected and propagated by the proposed alternate thermal limitations. An Ohio EPA staff review of the 316(a) demonstration draws the same conclusion and clearly indicates that the BIP was not being protected by the proposed alternate effluent limitations. In this case, even if the 1976 demonstration had indicated that a BIP was being protected and propagated, the current SGS operations represent a 54% increase in the maximum thermal loading beyond the 1976 demonstration used in assessing the impact to LTMC.

EPA is unaware of any studies that have been conducted within LTMC since the original 1976 316(a) demonstration. ORSANCO has conducted numerous studies regarding the Ohio River and these are discussed in Response A.1.

Response 3.3	Document: 2

Commentors discuss that thermal avoidance does not equate to inhibiting the protection and propagation of a BIP. They discuss how species will migrate to areas of preferred environmental conditions and that attraction and avoidance occur in areas where thermal discharges occur based upon the season.

EPA Response

EPA agrees with the commentor that thermal avoidance does not prevent the finding that a BIP is protected and propagated and that organisms will seek out areas with preferred environmental conditions. However, when assessing whether thermal avoidance/attraction does prevent a BIP from being protected and propagated, it is necessary to assess what impact the thermal discharge has on the water body that receives the discharge. In this case, LTMC has water quality standards and a BIP that are distinct from the Ohio River, and LTMC is the primary receiving waterbody. During the summer months, the portion of the waterbody that is impacted by the discharge is uninhabitable to almost all organisms that are included in the BIP. The 1976 § 316(a) demonstration indicates that there is insufficient refugia within LTMC outside of the discharge impacted area to make a finding that the BIP is protected and propagated in and on the waterbody.

Federal regulations require that the BIP not be dominated by pollutant tolerant species; in this case, the non-summer population is predominantly catfish and bass which are more thermally tolerant than other species that should exist in LTMC. This appears to be inconsistent with the federal regulations and CWA absent the results of a comprehensive biological survey of LTMC.

Response 3.4	Document: 6,8

Commentors state that the SGS permit must be rewritten to be compliant with either Section 316(a) or the state water quality standards. Commentors point out both that the BIP in LTMC and potentially the BIP in the Ohio River are not being protected and propagated due to the thermal discharge from the SGS. Commentors discuss numerous documents in the administrative record that indicate that Ohio acknowledged that there would be effects from the thermal discharge harmful to aquatic life from temperatures exceeding 100 degrees Fahrenheit

EPA Response

EPA appreciates the information provided by the commentors and was aware of the potential impacts to the BIP from the original 316(a) demonstration when the permit objection was made.

Response 3.5	Document: 8

Commentors cite to the federal regulations and the Brayton Point Environmental Appeals Board decision on 316(a) implementation and the definition of a BIP. Commentors discuss the thermal discharge impacts in LTMC and note that the dramatic reductions in fish population, diversity and numbers are the result of more than thermal avoidance.

EPA Response

EPA appreciates the information provided by the commentors and was aware of the potential impacts to the BIP when the permit objection was made.

Public Health Comments

Response 4.1	Document: 3,4,5,6,7,8

Commentors express significant concerns regarding the thermal discharge and potential public health impacts. Commentors provide input that this area of the Ohio River is heavily utilized for recreational purposes including boating, tubing and water skiing. Commentors express concern that there is no warning for fishermen or boaters as to the potential danger from the thermal discharge. Commentors also express concern that the discharge can extend across the Ohio River to the Kentucky bank of the river and that elevated temperatures up to a half mile downstream at could have public health impacts. One commentor questions the highest recorded temperature of 135, but acknowledged that the river was very hot on the surface.

EPA Response

EPA was aware of and shared the concerns of the commentors regarding the public health issues when the objection to the proposed permit was made. EPA objected to the proposed permit based on the 316(a) alternate limitation, which only ensures the protection and propagation of the biological community of fish, shellfish and wildlife. In its objection letter, EPA stated that if EPA were to issue the permit, thermal limitations based upon water quality standards would be implemented in the permit. EPA believes that temperatures protective of the BIP would address all public health concerns. As such, EPA chose not to object to the failure to include thermal limitations protective of human health, since any final permit resolving EPA's objection would be protective of human health concerns as well. EPA is committed to ensuring that the final limitations included in the NPDES permit for the SGS are protective of public health as well as the biological community.

Response 4.2	Document: 3,6,7,8

Commentors provide information on exposure to different temperatures that have been measured at SGS and the resulting time to third degree burns. The commentors state that temperatures of up to 135 degrees Fahrenheit can cause third degree burns in 6 seconds and 120 degree water can cause third degree burns within 5 minutes. Commentors also present information from the Ohio Department of Health indicating that hot tubs or spas can only have a maximum temperature of 104 degrees Fahrenheit.

EPA Response

EPA appreciates the information provided by the commentors and was aware of the potential impacts to human health when the permit objection was made (see Response 4.1)

Response 4.3	Document: 6,8

Commentors express concern over the proliferation of harmful thermophilic bacteria due to the elevated temperatures that can impact the immediate and downstream recreational uses. Commentors note that this would violate the narrative water quality criteria contained in Ohio Administrative Code 3745-1-04 that requires waters to be free of substances that "create a nuisance".

EPA Response

EPA appreciates the information provided by the commentors and was aware of the potential impacts to human health when the permit objection was made (see Response 4.1)

III. Miscellaneous Comments

The comments received included many comments that did not directly address the objection to the thermal limitation for the discharge into LTMC. However, for completeness of this responsiveness summary, EPA is providing a summary of these additional comments and a response when appropriate to clarify EPA's knowledge and use of any of the information.

Response A.1	Document: 1, 2,3,4,5,6,7,8

Commentors provide many comments based upon the ORSANCO biological surveys conducted in the Ohio River. Commentors have different interpretations of the information provided in the reports from those surveys. Some commentors support the idea that the SGS discharge does not

have an impact due to exceedance of ORFIn scores at all locations and the continued exceedance in successive study years. Other commentors express concern that even though ORFIn scores were exceeded, there was a significant difference in the scores upstream and downstream of the SGS discharge. A commentor discusses shellfish surveys required when the FGD units were being installed, and how there were shellfish in the area of the outfall, although less than would be expected to be upstream in cooler water.

EPA Response

For the SGS discharge, EPA recognizes that the discharge impacts the Ohio River after the confluence with LTMC. EPA objected to the proposed permit based on the 316(a) alternate limitation which ensures the protection and propagation of the biological community of fish, shellfish and wildlife in LTMC. In its objection letter, EPA stated that if it were to issue the permit, thermal limitations based upon water quality standards for LTMC would be implemented in the permit. Under the NPDES permit program, limitations should also ensure that the water quality standards of the downstream waters are maintained as well as those to the immediate receiving water body. EPA is committed to ensuring that the final limitation included in the NPDES permit for the SGS is protective of the biological community in the Ohio River as well as LTMC.

Response A.2	Document: 3,7

Commentors state that the ORSANCO report for the Ohio River fish studies indicated that any temperatures over 98 degrees were considered to be toxic to aquatic life and note that temperatures at the confluence of LTMC and the Ohio River often exceed this temperature.

EPA Response

For the SGS discharge, EPA recognizes that the discharge impacts the Ohio River after the confluence with LTMC. EPA objected to the proposed permit based on the 316(a) alternate limitation which ensures the protection and propagation of the biological community of fish, shellfish and wildlife in LTMC. In its objection letter, EPA expressed that if EPA were to issue the permit, thermal limitations based upon water quality standards for LTMC would be implemented in the permit.

EPA has reviewed the ORSANCO reports and is aware of the temperatures measured in the Ohio River as part of those studies. EPA is committed to ensuring that the final limitation included in the NPDES permit for the SGS is protective of the biological community in the Ohio River as well as LTMC.

Response A.3	Document: 1,2,3,5

Commentors provide information on the winter fishery that is available due to the discharge from SGS. Commentors state that the 1991 permit required SGS to construct and maintain the fishing

access area. Commentors provide references for fishing reviews for LTMC and that record setting fish have been caught in LTMC. One commentor feels that reducing the temperature of the discharge to meet water quality standards would not ruin the winter fishery.

EPA Response

EPA appreciates the information provided by the commentors. A thriving sport fishery is one of the primary goals of the Clean Water Act through development of water quality standards and permit limitations. Section 316(a) requires the protection and propagation of a balanced and indigenous community when limitations that would exceed those from water quality standards are included in a permit. However, these sport fish are attracted by the temperature of the discharge in the winter and the established community may not be balanced or indigenous as required by Section 316(a). Clearly, this community does not exist for the majority of the summer months and the temperatures in LTMC are known to be acutely toxic to the trophic levels that would provide forage and support this population, even in the winter time. Also see EPA's Response 3.3.

Response A.4	Document: 3,6,8

Commentors provide information on the water quality standards for LTMC and the Ohio River including the use designations of warm water habitat and bathing water. Commentors question whether the current discharge meets water quality standards in the Ohio River and LTMC and indicated that the permit should have limitations that meet these standards. Commentors also indicate that technology based limitations based upon best professional judgment were also appropriate for this facility.

EPA Response

EPA was aware of the water quality standards when the objection to the 316(a) alternate limitation was made. In the objection letter, EPA stated that thermal limits based upon water quality standards should be set that would ensure that both LTMC and the Ohio River attain their respective water quality standards. As to technology based limitations, the permitting authority should ensure that any applicable effluent limitation guideline is applied to the facility. When an effluent guideline does not exist, the CWA directs the permitting authority to consider whether technology based effluent limitations are appropriate based upon best professional judgment of the permitting authority. In this case, Ohio EPA did not include technology based limitations for the thermal discharge in the proposed permit.

Response A.5	Document: 3

Commentors raise the issue of monitoring data that showed numerous permit limitation violations for outfall 013 at the SGS.

EPA Response

EPA was aware of the permit limitation violations at outfall 13 at SGS. EPA's review of proposed NPDES permits prepared by a state program is limited to ensuring that the limitations and conditions in the permit are consistent with state water quality standards and regulations and any applicable federal regulations or standards. Enforcement of those limitations and conditions in an issued permit is a separate process.

Response A.6	Document: 5,8

Commentors discuss the thermal plume in the Ohio River that results from the discharge. One commentor raises the issue that given the amount of flow in the Ohio River, this is not an insignificant discharge and can impact the river from one shore to the next and as deep into the river as the thermal plume goes. Other commentors raise the issue that a properly defined mixing zone has never been established for the facility. Specifically, the commentors state that the location where discharge induced mixing ceases has not been identified as required by Ohio regulations. These commentors also raise the issue that the mixing zone must not interfere with the designated or existing uses of the receiving water or downstream waters.

EPA Response

EPA agrees with the commentors and has been working with the states in Region 5 to ensure that mixing zones authorized in NPDES permits are compliant with state regulations and federal guidance. Mixing zone studies should be required when a discharge has the potential to cause a significant impact to the receiving waterbody and downstream waters due to the volume of discharge.

Response A.7	Document: 5,6

Commentors present information from the DP&L website on the values of the company and how they believe that the company respects and upholds those values. Commentors also discuss the improvements that DP&L has made at its facilities in the state and how its investment in pollution reduction and will create jobs in the area. The commentors challenge DP&L to do better than they are doing and encourage DP&L to reduce the thermal loading from the facility in line with those values.

EPA Response

EPA appreciates the commentors views and efforts that DP&L has made through investments in pollution reduction technologies at its facilities.