

State Pollutant Discharge Elimination System (SPDES)
INDUSTRIAL APPLICATION FORM NY-2C & MUNICIPAL APPLICATION FORM NY-2A
 Supplement A
BCC ANTIDEGRADATION DEMONSTRATION

Facility Name:	SPDES Number:
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This supplement to your application requests information regarding the use of Bioaccumulative Chemicals of Concern (BCCs) at your facility. Complete this supplement if any of the chemicals listed on Table 2 of this supplement are identified or believed to be present in the discharge from any of the outfalls at your facility. If you have questions, please call the Bureau of Water Permits at (518) 457-1157.

Table 1: BCC Usage Information

Chemical Name	Quantity Discharged	Mass Loading (lb/day, etc.)	Purpose of Use (see ICS codes)

Antidegradation Demonstration

Attach a summary showing the rationale for the use of the above chemical(s). The summary should include a brief description of the pollution prevention alternatives examined for the above chemical(s), an analysis of any alternative or enhanced treatment methods examined to reduce the quantity of the above chemical(s) in the discharge from your facility, and an analysis of the social and economic development aspects of the use of the above chemical(s). The specific areas to be considered and addressed in the summary are listed below.

Cost-Effective Pollution Prevention Alternatives

Pollution prevention activities must be considered and identified in determining whether or not alternatives exist that would reduce or eliminate the anticipated discharge of BCCs. Examples of pollution prevention activities that should be considered include:

- Substitution of non-bioaccumulative or non-toxic chemicals for BCCs: The applicant should determine if the source of a BCC can be eliminated in favor of a less environmentally problematic substance, especially one that is not a BCC.
- Application of water conservation methods: The applicant should determine whether or not reductions in the overall volume of waste water are possible and would reduce pollutant loadings.
- Waste source reduction within process streams: The applicant should evaluate all waste streams involved in the process associated with the discharge. Opportunities to control more carefully the use of raw materials and reduce waste should be identified and implemented where feasible.
- Recycle or reuse of waste byproducts: The applicant should identify ways in which recycling and reuse of internal waste streams can be employed to reduce the loadings of pollutants to the environment.
- Manufacturing Process Operational Changes: The applicant should identify different means of achieving the desired end that will produce either smaller quantities of toxic waste products or waste products that are less toxic. All of the processes that are related to the new/increased discharge should be examined and alternatives that would reduce or eliminate the discharge of BCCs should be identified.

Cost-Effective Municipal Pollution Prevention Alternatives

Pollution prevention is applicable to municipal as well as industrial dischargers. Where a significant lowering of water quality will result from increased industrial use of a municipal treatment plant, the municipality should ensure that the loadings from the industrial users are minimized through pollution prevention to the extent possible. Tools available to municipalities to encourage pollution prevention include local limits and fees levied on industrial users. Municipalities should also consider public education and restrictions on certain substances to reduce loadings from nonindustrial sources.

Alternative or Enhanced Treatment to Reduce the Discharge of BCCs

This analysis should be undertaken after the pollution prevention analysis is completed and should focus on removing the remaining incremental increase in pollutant loadings after cost-effective pollution prevention measures are taken.

The objective of the alternative or enhanced treatment analysis is to ensure that the discharge of pollutants is reduced to the greatest extent practicable. The analysis proceeds by identifying (if any) the least costly options for additional treatment that would reduce or eliminate the discharge of BCCs. The costs of the different treatment options are determined and compared to the costs of the treatment needed to achieve all applicable standards, including Federal effluent guidelines, water quality-based effluent limits and all other applicable Federal and State or Tribal requirements. Where treatment options are identified that are comparable in cost to baseline treatment costs and allow the proposed activity to occur without leading to a discharge of BCCs, those treatment options should be implemented.

Important Social and Economic Development

The applicant must show that the significant lowering of water quality proposed will support social and economic benefits. This part of the demonstration should occur only after pollution prevention or alternative treatment options are evaluated and the discharge of BCC remains. The applicant should identify:

- The area in which the economic benefits occur.
- The baseline economic condition of the area. Factors that may be useful include unemployment rates, percentage of the population living below poverty levels, percentage of the population that are elderly and average household income relative to State and National averages.
- The benefits of the proposed activity corrected for any negative economic impacts of the activity. The types of benefits from the activity to be considered include an increase in the number of jobs, an increase in personal income and/or wages, reduction in unemployment rates or social service expenses, increased tax revenues and provision of necessary social services. Other measures may be relevant on a case-by-case basis.
- Adverse economic impacts may also result from an activity that supports social and economic development. For example, a new industrial facility may provide additional jobs in a community; however it may also make the receiving water less attractive for recreation and cause a loss in tourism dollars. Such impacts should be considered in determining whether or not a project or activity that will result in a significant lowering of water quality will also support important social and economic development.
- Whether a proposed activity will preclude another activity that may not affect water quality yet yield comparable social and economic benefits. For example, the siting of an industrial plant may preclude water front development or building of a marina that would provide comparable social and economic development at less cost to the environment.

Table 2
BIOACCUMULATIVE CHEMICALS OF CONCERN (BCCs)

NAME	CAS NUMBER
Chlordane (also CAS# 12789-03-6)	57-74-9
4,4'-DDD; p,p'-DDD; 4,4'-TDE; p,p'TDE	72-54-8
4,4'-DDE; p,p'-DDE	72-55-9
4,4'-DDT; p,p'-DDT	50-29-3
Dieldrin	60-57-1
Hexachlorobenzene	118-74-1
Hexachlorobutadiene; hexachloro-1,3-butadiene	87-68-3
Hexachlorocyclohexane; BHC	608-73-1
alpha-Hexachlorocyclohexane; alpha-BHC	319-84-6
beta-Hexachlorocyclohexane; beta-BHC	319-85-7
gamma-Hexachlorocyclohexane; gamma-BHC; Lindane	58-89-9
delta-Hexachlorocyclohexane; delta-BHC	319-86-8
Mercury	7439-97-6
Mirex; dechlorane	2385-85-5
Octachlorostyrene	29082-74-4
Pentachlorobenzene	608-93-5
Photomirex	39801-14-4
Polychlorinated Biphenyls; PCBs	A21000-00-0
2,3,7,8-TCDD	1746-01-6
1,2,3,4-Tetrachlorobenzene	634-66-2
1,2,4,5-Tetrachlorobenzene	95-94-3
Toxaphene	8001-35-2