

AIR TAP Briefings

A publication of the Airport Technical Assistance Program of the Center for Transportation Studies at the University of Minnesota

Fall 2009

NPDES and stormwater issues for airports

Much has changed in Minnesota's Industrial Stormwater Permit since it was first drafted. A session at this year's AirTAP Fall Forum outlined new standards for National Pollution Discharge and Elimination Systems (NPDES) at airports. Presenters Melissa Wenzel of the Minnesota Pollution Control Agency (MPCA), Doug Carter of Bolton and Menk, and Toni Howell of the Metropolitan Airports Commission gave a general overview of the changes and offered suggestions for how small airports can comply.

The MPCA administers the new requirements of the Industrial Stormwater Multi-Sector General Permit, which regulates stormwater discharges associated with industrial activity. This permit replaces the General Permit for Industrial Stormwater Activity that expired in 2002. The new permit describes multiple sectors and sector-specific requirements, stormwater discharge monitoring requirements, and permit conditions to prevent discharges to impaired and high-value waters. The permit now covers 29 industrial sectors; sector S of the permit applies to air transportation.

Creating a pollution prevention plan

The MPCA's Industrial Stormwater Program requires that every airport apply for a permit even if it was previously covered under the expired permit. First, the permittee must prepare a Stormwater Pollution Prevention Plan (SWPPP). If a facility was previously covered under the expired permit, the original document may serve as a good starting point for the revised plan and requirements. Templates and sample SWPPPs are available on the MPCA's Web site. Best management practices (BMPs) must be identified in the SWPPP that illustrate how an airport and its operations will prevent pollution from entering the airport's stormwater sources.

A SWPPP must include the following:

- A facility map
- A review of significant materials and pollutants
- A description of BMPs
- An evaluation of discharges other than stormwater
- A description of the airport's preventive maintenance program, spill prevention and response procedures, and employee training program
- Identification of qualified personnel responsible for managing and implementing the SWPPP

The MPCA plans to offer workshops



Melissa Wenzel, Doug Carter, and Toni Howell presented at the AirTAP Fall Forum.

on SWPPP development in the spring of 2010.

Certifying for No Exposure

Facilities that shelter all pollutant-containing (significant) materials and activities from rain, snow, and runoff may be eligible for a five-year exclusion from the requirements of the industrial stormwater permit. This "No Exposure Exclusion" may apply to airports that do not store materials or conduct industrial activities outside. If an airport qualifies for No Exposure, there is no SWPPP to create, no annual fee to pay, no annual reports to write, and no monitoring to conduct.

Applying for the permit

Once an airport determines that it needs a permit, it should gather the information and application materials required to apply. These include:

- Standard Industrial Classification (SIC) code(s) and industrial activities at the facility
- Sector(s), sub-sector(s) (for future permit)
- Facility (location) address, mailing address
- Latitude/longitude of the facility
- Size of the facility (in acres)
- Facility contact (owner/operator)
- Information on where the stormwater runoff discharges to
- Water bodies (including "special" waters)
- Non-degradation requirements (for future permit)
- Discharge monitoring locations (for future permit)
- SWPPP completion

A permit application form can be found at www.pca.state.mn.us/water/stormwater/stormwater-i-step6.html. Once the permit is issued, an airport must comply with the requirements.

Installing best management practices

The MPCA provides a comprehensive list of potential BMPs for an airport. Before selecting which BMPs to use, an airport

manager should consider:

- Which ones will require the most time and money?
- Which ones would be easiest to implement or take the least amount of time to install?
- Which ones will have the most significant impact on improving stormwater runoff?

The permit establishes additional requirements for the air transportation sector for implementation of infiltration BMPs to protect groundwater resources. Facilities will not be allowed to construct new infiltration devices. However, facilities will be allowed to upgrade existing infiltration devices to meet specific design standards, such as limits on the volume of stormwater containing deicing fluids.

An airport manager may decide to choose different BMPs during the life of the permit in response to the airport's benchmark monitoring results, because of a change in facility operation, or due to an expansion of a facility. In that event, the SWPPP must be updated. The MPCA's *Multi-Sector General Permit BMP Guidebook*, expected to be available in December of 2009, will provide additional guidance.

Monitoring water

Part VII of the permit outlines sector-specific requirements for water quality benchmark values and effluent limits on stormwater discharges leaving the permitted facility. Permittees must monitor discharges quarterly during the second year of the permit cycle. If the results exceed the benchmark values and effluent limits, the permittee is expected to improve or implement additional BMPs and conduct additional monitoring during the fourth year. If the results exceed benchmarks during this fourth year, the permittee must submit a Benchmark Exceedance Report and remedy the exceedance within

Continued on back

More fall forum coverage in next issue

More than 70 attendees from airports across Minnesota gathered in late September in Mankato for the 2009 AirTAP Fall Forum. Presentation materials for many of the sessions are now available on the AirTAP Web site at www.airtap.umn.edu, while coverage of the event will be featured in a special issue of *Briefings* in early 2010.

a shorter period of time. A facility with a status of No Exposure will not need to sample its stormwater runoff.

Sampling and understanding the monitoring results may be the most difficult—and most important—aspect of the future Multi-Sector General Permit. The MPCA is developing a sampling guidance manual that will provide information on how to sample.

Every year, permittees should also assess whether the water(s) they discharge to is impaired. If so, a facility must begin additional monitoring for the pollutant(s) of impairment or its appropriate surrogate no later than 180 days following the approved listing of the impaired water. The Stormwater Programs and Impaired Waters Web page (www.pca.state.mn.us/water/stormwater/impairedwaters.html) provides more information on impaired waters.

Training employees

Employee training should be a major component of any SWPPP. When properly trained, personnel at all levels of responsibility are more capable of preventing

spills, responding safely and effectively to an accident, and recognizing situations that could lead to accidents.

Employee training as a control measure is an ongoing process. All new employees should be trained as soon as possible, and the complexity of the BMPs, the turn-around time of employees, and the effectiveness of the training will determine how often training sessions should be scheduled. Besides covering the components and goals of the SWPPP, training should include spill response procedures, good housekeeping practices, material management practices, stormwater discharge monitoring procedures (for the future permit), and BMP operation and maintenance.

The SWPPP should document a training schedule and planned training frequency. In addition, the airport manager or operator should keep a record of the trainer, the names of trained individuals, and the dates of the training (to be listed in the SWPPP or in a separate document).

The following individuals should be included in the training program:

- Employee(s) preparing the SWPPP
- Employee(s) overseeing implementa-

tion of, revising, and amending the SWPPP

- Employee(s) performing installation, inspection, maintenance, and repair of BMPs
- Employee(s) who work in areas of industrial activity subject to this permit
- Employee(s) who conduct stormwater discharge monitoring (future permit requirements)

The MPCA has joined with the University of Minnesota to offer training. See the University's Erosion and Sediment Control Certification Program Web site at www.erosion.umn.edu for times and locations.

Reporting annually

Each airport is required to submit an annual report, which helps the MPCA understand what is occurring at individual facilities and helps the airport evaluate its industrial stormwater practices. The MPCA Web site provides information on what to include in and how to submit an annual report.

Guidebook offers advice, resources for airport managers

The managers of small airports have a wide range of duties and have often come into their job with little formal airport management training. The Airport Cooperative Research Program's recently published *Guidebook for Managing Small Airports* (ACRP Report 16) aims to help these airport personnel find resources and techniques they can apply to better meet their responsibilities.

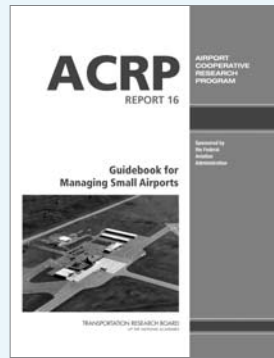
The guidebook was created by Minnesota AirTAP, which assembled the research team for the project and provided overall leadership and management.

The ACRP is sponsored by the Federal Aviation Administration (FAA) and managed by the National Academies, acting through its Transportation Research Board (TRB). It is one of the TRB's applied contract research programs that develop near-

term, practical solutions to problems facing transportation agencies.

Small airport managers, owners, operators, and policymakers are assumed to be responsible for activities often unrelated to the management of the airport, says **Jim Grothaus**, AirTAP director and the project's principal investigator. "The [guidebook] project team intended to capture the critical issues that these practitioners frequently encounter while wearing the airport manager's hat."

In addition to Grothaus, the guidebook's authors were **Thomas Helms Jr.**, formerly of CTS; **Shaun Germolus** and **Dave Beaver**, AirportAdmin, LLC.; **Kevin**



Carlson, Tim Callister, and **Bob Kunkel**, Mead & Hunt, Inc.; and **Ann Johnson**, Professional Engineering Services, Ltd.

The guidebook gives airport managers and operators current, practical advice in a convenient format on such topics as financial management, safety and security, noise control, community relations, capital improvements, and facility maintenance. It also identifies the best sources of additional information about these topics.

The *Guidebook for Managing Small Airports* can be downloaded or a printed copy ordered from TRB's Web site at www.trb.org/Main/Public/Blurbs/162145.aspx.

AirTAP was developed through the joint efforts of the Minnesota Department of Transportation (Mn/DOT), the Minnesota Council of Airports (MCOA), and the Center for Transportation Studies (CTS).

Briefings is published quarterly in print and online. Please direct comments to: **Amy Friebe**, *Briefings* Editor
Jim Grothaus, AirTAP Director
Mindy Carlson, Program Coordinator

Center for Transportation Studies
University of Minnesota
200 Transportation & Safety Bldg.
511 Washington Avenue S.E.
Minneapolis, MN 55455
Phone: 612-626-1077
Fax: 612-625-6381

E-mail: groth020@umn.edu
Web: www.airtap.umn.edu

Contributing writer: **Ann Johnson**, Professional Engineering Services
Designer: **Cadie Wright Adhikary**, CTS

The University of Minnesota is an equal opportunity educator and employer. This publication is available in alternative formats upon request; call CTS at 612-626-1077. Printed on recycled paper with 20% postconsumer waste.

Nonprofit Org.
U.S. Postage
PAID
Minneapolis, MN
Permit No. 155

AIR TAP Briefings

CENTER FOR TRANSPORTATION STUDIES
UNIVERSITY OF MINNESOTA

Airport Technical Assistance Program
University of Minnesota
200 Transportation and Safety Building
511 Washington Avenue S.E.
Minneapolis, MN 55455-0375