

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

1. Type of Estimate and Analysis

Original Updated Corrected

2. Administrative Rule Chapter, Title and Number

NR 114 - Certification Requirements for Waterworks, Wastewater Treatment Plant, Septage Servicing and Water Systems Operators

3. Subject

Revisions to Subchapter I for certification requirements of wastewater treatment plant operators

4. Fund Sources Affected

GPR FED PRO PRS SEG SEG-S

5. Chapter 20, Stats. Appropriations Affected

None

6. Fiscal Effect of Implementing the Rule

No Fiscal Effect Increase Existing Revenues Increase Costs
 Indeterminate Decrease Existing Revenues Could Absorb Within Agency's Budget
 Decrease Cost

7. The Rule Will Impact the Following (Check All That Apply)

State's Economy Specific Businesses/Sectors
 Local Government Units Public Utility Rate Payers
 Small Businesses (if checked, complete Attachment A)

8. Would Implementation and Compliance Costs Be Greater Than \$20 million?

Yes No

9. Policy Problem Addressed by the Rule

Wisconsin's wastewater treatment operator certification program was developed in the 1970's after the passage of the federal Clean Water Act. The last revisions occurred in the late 1990's. With new wastewater treatment technologies and the increase in on-line classes and distance learning programs, there is a critical need to update and modernize the certification program.

10. Summary of the businesses, business sectors, associations representing business, local governmental units, and individuals that may be affected by the proposed rule that were contacted for comments.

This rule revision will primarily impact wastewater treatment facilities (WWTF). To estimate the impact, we conducted a survey of 123 WWTF. A copy of the survey can be found in Attachment A; details of survey results will be discussed in question 12.

11. Identify the local governmental units that participated in the development of this EIA.

See above.

12. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

We identified five changes that could have a potential economic impact: Base level costs for exam fees, grandfathering of operator certification, re-classification of facility certification, certification costs of sanitary sewer collection system Operators-in-Charge, and increased demand for educational courses and study materials.

ADMINISTRATIVE RULES

Fiscal Estimate & Economic Impact Analysis

1. Base level costs for exam fees

Previously, there was a different advanced exam for certification in each subclass, costing \$25 per exam. Operators took an average of five exams, for a total cost of \$125. Under the new system, there is one single advanced exam that is an amalgamation of the former advanced exams. As the number of questions on the advanced exam has risen from 40 to 100, the exam fee has increased to \$50 to accommodate higher production and processing costs. There is also a \$100 application fee for advanced certification, which did not exist previously. Thus, the difference between the former and the revised rule is a \$25 increase per examinee. (See Table 2 in Appendix B for additional details.)

However, it is worth noting that while the price is increasing by \$25 for those that wish to take the exam, the exam is no longer mandatory. Those that are able to obtain advanced certification through other means will save \$25 as they will only be required to pay the \$100 application fee. Between 2008 and 2011, on average, 722 advanced exams were taken annually. Because there are now additional avenues for advanced certification, we anticipate that there will be fewer advanced exams taken each year.

Note: While exam preparation courses are not necessary to pass the exam, some operators may find them to be helpful in certification. Although department rules do not require prep courses, we expect that a small additional number of operators will choose to take the courses if the proposed rule is adopted.

2. Grandfathering of operators

Under the new rule, some basic operators may be grandfathered into advanced certification. Treatment facilities with a certification-based pay structure will face higher salary costs from these newly advanced operators. However, as the individual operators will benefit from higher salaries this impact would be considered an economic transfer rather than a cost.

To estimate the costs of grandfathering operators into advanced certification, we conducted a salary structure survey of WWTP. We sent the survey to 123 plants of various size, geographic location, and plant classification; fifty plants responded. Out of the fifty respondents, twenty-three had salary structures dependent on certification. We therefore anticipate these potential salary increases will affect less than half of the state's WWTF. For additional details on survey responses, see Appendix A.

Salary increases ranged from \$0.10 – \$1.50 per hour, or \$208 – \$3,120 per year, per operator. While we cannot predict exactly how many operators will be grandfathered into a higher salary, we do not anticipate this salary hike to be excessively expensive for plants that incorporate certification in their salary packages. Operators will also benefit from the higher wages.

3. Reclassifying Facilities/Plants

Some facilities may be reclassified from basic to advanced. Plants that implement high technology phosphorus controls will need operators with advanced certification. Because they would not otherwise pursue advanced certification, the cost to certify operators will be \$150 per facility.

There are 512 plants classified as basic statewide. (See Figure 1 in Appendix B for plant classification details.) In an informal survey of department wastewater engineers, engineers anticipated that 28 percent of basic plants would be reclassified as advanced for \$21,400 in statewide certification costs. Table 4 in Appendix B gives a range of estimates on reclassification costs depending on what percentage of facilities are reclassified as advanced.

ADMINISTRATIVE RULES

Fiscal Estimate & Economic Impact Analysis

4. Certifying Sanitary Sewer System Operators-in-Charge

New revisions introduce certification requirements for sanitary sewer collection systems. Operators will only need basic certification, and are thus only subject to the exam fee (\$25). As this is a new requirement, it will affect all 700 facilities, at a cost of \$25 per facility (\$17,500 statewide). This new level of certification will result in a better operated and managed sewer systems, which will reduce future sewer overflows and building backups.

5. Educational providers

There will be some benefit to organizations or individuals who provide exam prep classes and advanced coursework that fulfills the point system. In actuality, many of the “costs” described above are actually transfers, benefitting institutions and individuals providing education and training. See Table 3 in Appendix B for additional information on educational costs.

Summary of economic impact

Ultimately, the impact on the state’s economy will be moderate. Most of the changes that result from this rule are transfers rather than costs. The advanced exam will be slightly more expensive, but there will be fewer exams for operators to take and the exam is not mandatory. WWTF may need to pay higher salaries that they offset by increasing rates (or absorbing), but employees will benefit from the raises. Operators may choose to pay for preparatory classes, but those offering these courses will realize an increase in their business.

While there is some variability, we predict the total costs and transfers to be between \$100,000 and \$200,000 for the first year of implementation as facilities pursue operator certification necessitated by facility reclassification and the new sanitary system requirements. After the first year, economic impacts will be reduced to transfers resulting from salary increases and changes in exam costs.

We anticipate that the department will absorb implementation costs on the department level. Table 1 in Appendix 2 provides a summary of the costs associated with different aspects of the point system.

13. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

Question 9 outlined five primary objectives to this rule revision. The benefits from these objectives are as follows:

1. Plant classifications and operator certifications are streamlined and simplified by reducing certification levels from four to two;
2. Updated plant subclasses to better address new and changed technologies;
3. Replacing certification examinations with a point system allows more educational flexibility and online options for advancement;
4. Certification now includes sanitary sewer collection systems, which will protect public health and water quality from basement back-ups and sanitary sewer overflows;
5. Revising the code to separate wastewater and waterworks certification improves readability and understanding.

These new requirements aim to encourage the advancement of operator knowledge and competency in operating and rehabilitating aging infrastructure. In addition, sanitary sewer systems certification will provide the necessary knowledge for operators to develop and implement capacity management operation and maintenance (CMOM) programs. These

ADMINISTRATIVE RULES

Fiscal Estimate & Economic Impact Analysis

revisions will help streamline and improve the certification process while providing a wider range of opportunities for operators to receive advanced certification.

Additionally, there are unquantifiable benefits associated with clean water that were not incorporated into this analysis. We did not have the resources, time, or information to accurately analyze the precise changes in water quality that would result from better-qualified operators. However, this rule revision will result in fewer sanitary sewer failures and better water quality, which in turn returns economic benefits through tourism, recreation, reduced clean-up costs, and increased property values.

Alternatives:

Rule revisions were written to maximize flexibility for operator certification. They integrate the current exam certification system with options of gaining points through experience and educational training. The point system provides operators many different options to pursue advanced certification in a way that best suits them.

14. Long Range Implications of Implementing the Rule

In the long run, streamlining will provide greater flexibility for those pursuing advanced certification. The majority of the costs are up-front implementation and salary adjustment costs which benefit employees and educational providers. We predict that, going forward, operators will benefit from the increased education and flexibility provided by the point system.

15. Compare With Approaches Being Used by Federal Government

The federal government (USEPA) has no nationwide operator certification program. The certification of wastewater treatment plant operators is carried out by each state and their programs. All fifty states have wastewater treatment plant operator certification programs.

16. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

All neighboring states have wastewater treatment plant operator certification programs. These certification programs are based on examination and experience.

Only Minnesota requires a collection system certificate for wastewater collection, pumping, and conveyance facilities that are managed separately from the wastewater treatment facility. Illinois offers a voluntary wastewater collection system certificate. Indiana and Michigan do not offer state certification for collection systems.

ILLINOIS: In Illinois a voluntary Collection System Operator Certification is available for wastewater operators. The certification is administered by the Illinois State Environmental Protection Agency's Bureau of Water. Prerequisites for certification include a high school diploma (or equivalent), 6 months collection system operating experience and the equivalent of 6 months substitution experience. There is only one level of voluntary certification offered.

INDIANA: The Indiana Department of Environmental Management, who oversees certification of wastewater operators, does not offer collection system certification. The professional member association, Indiana Water Environment Association has a Collection System Committee (30+ members) administers a four-level voluntary collection system operation certification for wastewater operators.

MICHIGAN: The State of Michigan's Department of Environmental Quality, who certifies wastewater operators, does not offer certification for collection systems.

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

MINNESOTA: The Minnesota Pollution Control Agency (MPCA), who certifies wastewater operators, requires at least one certified collection system operator for a system of collection, pumping, and conveyance facilities that is operated separately from the facility that treats, stabilizes and disposes of wastewater. The MPCA classifies these facilities as type-S facilities with four subclasses (A, B, C, & D) based upon the size of the population served. If the collection facility is not operated separately from the treatment facility, the designated operator of the treatment facility is responsible and does not need a type S certificate.

OHIO: The Ohio Environmental Protection Agency's Division of Drinking and Groundwater certifies the person responsible and in charge of a collection system. Sewerage systems, a.k.a. collection systems, are classified. Sewerage systems may be classified at one of two levels (I and II) based upon design flow (< or > 0.15 MGD respectively).

17. Contact Name

Jack Saltes, Wastewater Operations Engineer

18. Contact Phone Number

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ADMINISTRATIVE RULES
Fiscal Estimate & Economic Impact Analysis

ATTACHMENT A

1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

2. Summary of the data sources used to measure the Rule's impact on Small Businesses

3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- Less Stringent Compliance or Reporting Requirements
 - Less Stringent Schedules or Deadlines for Compliance or Reporting
 - Consolidation or Simplification of Reporting Requirements
 - Establishment of performance standards in lieu of Design or Operational Standards
 - Exemption of Small Businesses from some or all requirements
 - Other, describe:
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4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

5. Describe the Rule's Enforcement Provisions

6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

- Yes No
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