- (c) All commercial users of an individual system constructed with grant assistance under NR 128.07.
- (7) "Infiltration" means water other than wastewater that enters a sewerage system (including sewer service connections) from the ground through such sources as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.
- (8) "Inflow" means water other than wastewater that enters a sewerage system (including sewer service connections) from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.
- (9) "Interceptor sewer" means a sewer whose primary purpose is to transport wastewaters from collector sewers to a treatment facility.
- (10) "Municipality" means any city, town, village, county, utility district, town sanitary district, public inland lake protection and rehabilitation district or metropolitan sewage district.
- (11) "Owner" means the state, county, town, town sanitary district, city, village, firm, company, institution, association, utility district, school district, metropolitan sewerage district, or individual owning or operating a sewerage system.
- (12) "Planning area" means that area under study as part of a facilities plan.
- (13) "Planning period" means the period over which sewerage system alternatives are evaluated for cost-effectiveness. The planning period begins with the initiation of the operation of the proposed facilities.
- (14) "Reviewable project" means any construction or installation project for which department approval is required, pursuant to s. 144.04, Stats., including any new sewerage system; and, any improvements, extensions, or alterations of existing sewerage systems which may effect the quality or quantity of effluent or the location of any outfall.
- (15) "Sewage collection system" means the common sanitary sewers within a sewerage system which are primarily installed to receive wastewaters directly from facilities which convey wastewater from individual structures or from private property, and which include service connection "Y" fittings designed for connection with those facilities. The facilities which convey wastewater from individual structures, from private property to the public sanitary sewer, or its equivalent, are specifically excluded from the definition of "sewerage collection system"; except that pumping units and pressurized lines for individual structures or groups of structures may be included as part of a "sewage collection system" when such units are cost effective and are owned and maintained by the sewerage system owner.
- (16) "Sewage treatment facilities" means sewerage systems defined in sub. (17) below exclusive of interceptor sewers and sewage collection systems.

- (17) "Sewerage system" means all structures, conduits and pipes, by which sewage is collected, treated, and disposed of, except plumbing inside and in connection with buildings served, and service pipes, from building to street main.
- (18) "Sewer service area" means that area served or anticipated to be served by a sewage collection system.
- (19) "Staging period" means the period of time during which reserve capacity will be provided in the sewerage system for future domestic, commercial, and industrial flows.
- (20) "WPDES permit" means the Wisconsin pollutant discharge elimination system permit required by s. NR 200.03 Wis. Adm. Code.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74; r. and recr. Register, December, 1978, No. 276, eff. 1-1-79; cr. (20), Register, August, 1981, No. 308, eff. 9-1-81.

- NR 110.04 Alternative requirements. (1) If the owner of a proposed reviewable project feels that compliance with the design requirements of this chapter is impracticable, the reasons therefore shall be fully communicated in writing to the department prior to the submission of final plans. This communication must set forth alternative requirements for which department approval is sought and all pertinent facts, data, reports and studies supporting the imposition of such alternative requirements.
- (2) If the department determines that compliance with the design requirements of this chapter would be impracticable in specific cases, it may approve alternative requirements which, in its opinion, are in substantial compliance with the requirements of this chapter.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74.

NR 110.05 Sewer extensions. (1) Purpose. The purpose of this section is to insure that department approval of applications for sanitary sewer extensions are consistent with and enhance the policy of the state to restore and maintain the chemical, physical and biological integrity of its waters to protect public health, safeguard fish and aquatic life and scenic and ecological values and enhance the domestic, municipal, recreational, industrial, agricultural and other uses of water.

- (2) Definitions. As used in this section:
- (a) "Bypasses and overflows" means discharges of wastewater directly or indirectly to waters of the state during dry or wet weather flow conditions caused by the intentional or inadvertent diversion of all or a portion of the wastewater flow from a sewerage system.
- (b) "Category 1 bypasses and overflows" means those bypasses and overflows that occur more frequently or under less severe circumstances than category 2 bypasses and overflows within the meaning of par. (c) of this subsection.
- (c) "Category 2 bypasses and overflows" means those bypasses and overflows occurring under abnormal circumstances. They may include an inadvertent bypass or overflow resulting from equipment damage or temporary power interruption; a bypass or overflow necessary to prevent loss of life or severe property damage; or a bypass or overflow of excessive storm drainage or runoff resulting from a precipitation event

having a probable frequency of once in 5 years or less. For the purposes of determining sewer extension eligibility in the case of combined sewer systems, the bypass or overflow frequency necessary to achieve compliance with the applicable requirements derived from an applicable state court-approved stipulation, order or judgment shall be used in lieu of the 5-year storm frequency when that frequency is less stringent than the 5-year storm frequency; and in all other cases the 5-year storm frequency is used. If there is no state court-approved stipulation, order or judgment applicable to a combined sewer system, then the bypass or overflow frequency necessary to achieve compliance with all applicable requirements of ch. 147, Stats., shall be used in lieu of the 5-year storm frequency when that frequency is less stringent than the 5-year storm frequency; and in all other cases, the 5-year storm frequency is used. When using the 5-year storm to define category 2 bypasses and overflows, other factors besides storm frequency shall be taken into account including local storm patterns, snow melt and snow cover, soil types and soil conditions, and frost depth.

- (d) "Dry weather flow" means the total flow in the sewerage system, plus the total volume of all bypasses and overflows, which occurs in the absence of wet weather flow conditions, and includes infiltration resulting from seasonal high groundwater.
- (e) "Sewer extension" means installation of a sewer or interceptor sewer or extension thereof to provide additional capacity for new development within the existing or proposed tributary area of the extension. Alterations or modifications of previously existing sewerage systems designed to replace inadequate existing structures, or installed because of inadequate hydraulic sewer capacity, which do not extend sanitary sewer service to previously unserved areas are not sewer extensions within the meaning of this paragraph.
- (f) "Wet weather flow" means the total flow in the sewerage system, plus the total volume of all bypasses and overflows, which occurs during periods of precipitation or snowmelt, including but not limited to rain, sleet, snow, hail, melting snow, or stream flooding.
- (g) "WPDES permits" means Wisconsin pollutant discharge elimination system permits issued by the department under ch. 147, Stats., for the discharge of pollutants.
- (3) Permissive approvals of sewer extension applications. (a) Unless an approval would be contrary to the purpose of this section, applications for sanitary sewer extensions shall be approved if the sewer will be tributary to:
- 1. A sewerage system which experiences no category 1 bypasses and overflows and
- 2. A sewage treatment plant which discharges an effluent in compliance with the monthly average effluent limitations for biochemical oxygen demand (BOD) and total suspended solids contained in ch. NR 210 or NR 214, Wis. Adm. Code, or with any more stringent water quality related effluent limitations required to achieve applicable water quality standards derived from chs. NR 102-104, Wis. Adm. Code, or from any federal water quality standard promulgated pursuant to s. 303 of P.L. 95-217 for any waters of the state.

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- (b) In the event that the WPDES permit for a sewage treatment plant currently discharging an effluent in accordance with ch. NR 210, Wis. Adm. Code, establishes a compliance schedule for achievement of any more stringent water quality related effluent limitations applicable to such treatment plant, compliance with the schedule of compliance in the discharge permit will be deemed to be compliance with the applicable water quality related effluent limitations.
- (c) In determining whether a discharged effluent is in compliance with the monthly average effluent limitations for biochemical oxygen demand (BOD) and total suspended solids contained in ch. NR 210 or NR 214, Wis. Adm. Code, or with any more stringent water quality related effluent limitations required to achieve applicable water quality standards the following procedure shall apply:
- 1. Compliance shall be determined by staff review of the previous 12 months of discharge monitoring data. If 12 months of data are not available, the review shall be based on the data that are available.
- 2. More than a total of 3 months of violations of the monthly average limitations for either BOD or suspended solids or both in the previous 12 months (or the equivalent ratio for the number of months of data available) shall cause denial, subject to the following additional considerations:
- a. Recognition of the inherent inaccuracy of the BOD and suspended solids tests shall be given by multiplying the monthly average effluent limitations as specified in the permit by a factor of 1.3 for BOD and 1.2 for suspended solids for purposes of determining whether monthly average effluent results are in compliance.
- b. The department may grant approval if it determines that, due to a demonstrable action by the permittee, the plant has been in compliance for 4 or more consecutive months, thus demonstrating a trend toward better operation.
- c. The department may grant approval in those instances where noncompliance with the effluent limitations has been caused by algae growth in a treatment facility utilizing lagoons as the principal treatment device.
- d. The department may grant approval if it determines that noncompliance with the effluent limitations has been caused by operating difficulties associated with plant startup for those sewage treatment facilities which have recently been constructed or undergone major modification or expansion. The period described as plant startup may be no longer than 12 consecutive months.
- (4) Denial of sewer extension applications. Applications for sanitary sewer extensions shall be denied if the sewer will be tributary to:
- (a) A sewage treatment plant which discharges an effluent not in compliance with the monthly average effluent limitations for biochemical oxygen demand (BOD) and total suspended solids contained in ch. NR 210 or NR 214, Wis. Adm. Code, or with any more stringent water quality related effluent limitations required to achieve applicable water quality standards derived from chs. NR 102-104, Wis. Adm. Code, or

from any federal water quality standard promulgated pursuant to s. 303 of P.L. 95-217 for any waters of the state.

- 1. In the event that the WPDES permit for a sewage treatment plant currently discharging an effluent in accordance with ch. NR 210, Wis. Adm. Code, establishes a compliance schedule for achievement of any more stringent water quality related effluent limitations applicable to such treatment plant, compliance with the schedule of compliance in the discharge permit shall be deemed to be compliance with the applicable water quality related effluent limitations.
- 2. Applications for sewer extensions otherwise prohibited by sub. (4) (a) may be approved if the owner of the sewage treatment plant or the owner of the sewerage system to which the sewer extensions are tributary, submits to the department an acceptable program to assure provision of the appropriate effluent quality, by July 1, 1983. The program shall include a time schedule for completion of the necessary construction or upgrading. It shall also include proof of financial ability and commitment to complete the program in accordance with the time schedule.
- 3. If applicable effluent limitations are not achieved after an owner has completed a program to upgrade the treatment works, no future sewer extensions may be approved until either of the following occur:
- a. Applicable effluent limitations are achieved in accordance with sub.
 (3) or
- b. An owner submits a new or modified program meeting the requirements of sub. (4) (a) 2., when failure to complete the work adequately was due to an event over which the owner had little or no control. For the purposes of this section, the failure to receive federal or state construction grants may not be considered to be an event over which the owner had little or no control.
- (b) A sewerage system in which any category 1 bypasses or overflows occur during dry weather flow conditions.
- 1. Applications for sewer extensions otherwise prohibited by sub. (4) (b) may be approved if the owner of the sewage treatment plant or the owner of the sewerage system to which the sewer extensions are tributary submits to the department an acceptable dry weather flow correction program to assure provision of the appropriate effluent quality, with no category 1 bypasses or overflows, during dry weather flow conditions, by July 1, 1983. The program shall include a time schedule for completion of the necessary construction or upgrading. It shall also include proof of financial ability and commitment to complete the program in accordance with the time schedule.
- 2. If category 1 bypasses or overflows continue during dry weather flow conditions after an owner has completed an approved program to correct category 1 bypasses and overflows occurring during dry weather flow conditions, no future sewer extensions may be approved until either of the following occur:
- a. An owner corrects category 1 bypasses or overflows occurring during dry weather flow conditions or

- b. An owner submits a new or modified program meeting the requirements of sub. (4) (b) 1., when failure to complete the work adequately was due to an event over which the owner had little or no control. For the purposes of this section, the failure to receive federal or state construction grants may not be considered to be an event over which the owner had little or no control.
- (c) A sewerage system in which any category 1 bypasses or overflows occur during wet weather flow conditions.
- 1. Applications for sewer extensions otherwise prohibited by sub. (4)
 (c) may be approved if the owner of the sewage treatment plant or the owner of the sewerage system to which the sewer extensions are tributary submits to the department an acceptable wet weather flow correction program to assure provision of the appropriate effluent quality, with no category I bypasses or overflows, during wet weather flow conditions, by July 1, 1983. The program shall include a time schedule for completion of the necessary construction or upgrading. It shall also include proof of financial ability and commitment to complete the program in accordance with the time schedule.
- 2. In the event the owner of a sewerage system within which category 1 bypasses or overflows occur during wet weather flow conditions submits a program for correction which includes a time schedule extending beyond July 1, 1983, the natural resources board shall review the owner's program and the recommendations of department staff concerning it. The natural resources board shall then either approve or disapprove the owner's program. Any approvals granted under this section may not have time schedules that extend beyond July 1, 1986.
- 3. If category 1 bypasses or overflows continue during wet weather flow conditions after an owner has completed an approved program to correct category 1 bypasses and overflows occurring during wet weather flow conditions, no future sewer extensions may be approved until either of the following occur:
- a. An owner corrects category 1 bypasses or overflows occurring during wet weather flow conditions or
- b. An owner submits a new or modified program meeting the requirements of sub. (4) (c) 1. or (4) (c) 2., when failure to complete the work adequately was due to an event over which the owner had little or no control. For the purposes of this section, the failure to receive federal or state construction grants may not be considered to be an event over which the owner had little or no control.
- (5) Excertions. Sewer extensions otherwise prohibited by sub. (4) may be granted by the department upon the determination of any of the following:
- (a) That construction of the subdivision, commercial establishment, institutional facility or industrial plant had commerced prior to May 24, 1976, as evidenced by the issuance of a building permit;
- (b) That the area to be served was developed prior to May 24, 1976 and that the sewer extension will eliminate use of existing private sewage systems which pose a threat to the public health or safety, provided Register, August, 1981, No. 308
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that connections to the sewer are allowed only for the existing development;

- (c) That the sewers to be installed will result in the elimination of existing category 1 bypasses or overflows which occur during dry weather flow conditions or will result in the abondonment of an existing inadequate sewage treatment plant;
- (d) That the proposed extension is a modification of a sewer extension previously approved by the department, providing that the modification results in no increase in the anticipated waste discharge to the sewer system;
- (e) That the facilities to be served are intended primarily to provide educational, humanitarian, or charitable community services;
- (f) That the program, time schedule, and the commitment to proceed are established in a court-approved stipulation, order, or judgment.
- (6) CONNECTION RESTRICTIONS. As a condition of any approval granted under sub. (4) or (5) of this section, the department may require than an applicant for a sewer extension restrict the number of connections made to the sewer system in accordance with a prescribed schedule.
- (7) COMPLIANCE REVIEW. Failure of the owner of the treatment works, or the owner of the sewerage system, to comply with any element of an acceptable program, time schedule, financial commitment, or other condition of approval established pursuant to this section, shall cause denial of all subsequent applications for sewer extensions which would be tributary to the treatment works or sewerage system, except in those cases in which the department determines that noncompliance with that element of an acceptable program, time schedule, financial commitment, or other condition of approval established pursuant to this section occurred because of an event over which the applicant had little or no control. For the purposes of this section, the failure to receive federal or state construction grants may not be considered to be an event over which the owner had little or no control.
- (8) Enforcement responsibilities. Category 2 bypasses and overflows, which result in violations of WPDES permits or court orders and judgments, may still result in enforcement action, notwithstanding a favorable determination regarding future sewer extensions. The 5-year storm frequency does not represent a criterion for determining compliance with effluent limitations.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74; emerg. r. and recr. eff. 5-24-76; r. and recr. Register, September, 1976, No. 249, eff. 10-1-76; am. (3) (b) and (4) (b), Register, April, 1980, No. 292, eff. 5-1-80; am. Register, August, 1981, No. 308, eff. 9-1-81.

- NR 110.06 Construction plans for reviewable projects. (1) All construction plans for reviewable projects submitted to the department shall be in conformance with ch. NR 108, Wis. Adm. Code, and shall bear a suitable title block which includes the name of the owner, the scale and the date. The north point shall be shown on each plan. All plans shall be clear and legible. Blueprints will not be accepted. The datum used shall be indicated and shall be related to U.S.G.S. datum.
- (2) Detailed construction plans shall contain appropriate plan views, elevations, necessary sections and supplemental views which together

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with the specifications provide all necessary information for construction of the project. Manufacturers' drawings shall not be accepted.

(3) All construction plans shall be in conformance with an approved facilities plan as required in NR 110.08 (1).

Note: Applicable state and local codes, including those of the department of industry, labor and human relations, the public service commission and the department of health and social services, should be consulted for other requirements.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74; r. and recr. Register, December, 1978, No. 276, eff. 1-1-79.

- NR 110.07 Specifications for reviewable projects. (1) Complete technical specifications for all reviewable projects shall accompany the construction plans. Where feasible the specifications shall contain provisions for maintaining the same degree of wastewater treatment during construction as that which existed prior to the start of construction.
- (2) The specifications accompanying the detailed construction drawing shall include, wherever applicable:
 - (a) All construction information not shown on the plans;
- (b) The complete requirements for all mechanical and electrical equipment;
 - (c) The type and operating characteristics of all equipment;
 - (d) The laboratory fixtures and equipment;
 - (e) The construction materials to be used;
 - (f) The identification of the chemicals to be used; and
- (g) The instructions for testing materials and equipment to meet design standards.
- (3) Specifications reproduced from manufacturers' data and bearing the manufacturers' labels will not be accepted.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74; r. and recr. Register, December, 1978, No. 276, eff. 1-1-79.

- NR 110.08 Facilities plans for reviewable projects. (1) APPLICABILITY. A facilities plan shall be included with each reviewable project submitted to the department for approval. Facilities plans or sewage treatment facilities shall be submitted and approved by the department prior to submittal of the construction plans.
- (2) CONTENT. The facilities plan shall contain all of the information required by NR 110.09 (1) (6), 110.10 (1) and (2), or 110.11 (1) whichever are applicable. The level of detail necessary to fulfill this requirement may vary depending upon the size and complexity of the project.
- (3) WISCONSIN ENVIRONMENTAL POLICY ACT REVIEW. (a) Facilities plans, other than those excluded in NR 150.03 (2) (d) 17., Wis. Adm. Code (1978), shall be screened by the department to determine whether it is required to prepare an environmental impact statement in accordance with ch. NR 150 (1978).

- (b) For a proposal which a federal agency and the department determine to be a major and significant action, the requirements of NR 150.10 (1978) shall apply.
- (4) CONFORMANCE WITH APPROVED AREAWIDE WASTE TREATMENT MAN-AGEMENT PLANS. All approvable sewerage system facility plans must be in conformance with approved areawide waste treatment management plans unless the department determines that such plans conflict with the department's responsibilities to protect, maintain, and improve the quality and management of the waters of the state, ground and surface, public and private. In the absence of an approved areawide waste treatment management plan, no determination of such conformance is reauired.
- (5) APPROVAL OF NEW SEWAGE TREATMENT FACILITIES. It is the policy of the department to restrict the construction of new sewage treatment facilities in order to preserve and protect the quality of the waters of the state. The department may deny requests for approval of new sewage treatment facilities unless they meet the following criteria:
- (a) Treatment facilities to serve existing residential development. Proposals for new treatment facilities to serve existing residential development-may not be approved unless:
- They are necessary to solve a documented and severe existing water quality (groundwater or surface water) or public health problem related to inadequate existing residential sewage disposal; or, are needed to replace an existing treatment facility which is not in compliance with its WPDES permit;
- 2. They are the cost-effective alternative solution in accordance with s. NR 110.09(1) (a); and
 - They are municipally owned, operated and maintained.
- (b) Interim treatment facilities. An interim treatment facility is one which would serve areas which are within the future sewer service area of another existing facility as delineated in an approved areawide water quality management plan as provided for in ch. NR 121, Wis. Adm. Code. Proposals for new interim treatment facilities may not be approved unless:
- They are necessary to solve a documented and severe existing water quality (groundwater or surface water) or public health problem related to inadequate existing residential sewage disposal; or, are needed to replace an existing treatment facility which is not in compliance with its WPDES permit;
- 2. They are the cost-effective alternative solution in accordance with s. NR 110.09(1)(a);
 - They are municipally owned, operated and maintained;
- 4. The sewage collection system is designed so that it can be easily connected to the regional system in the future;
- 5. The sewer service area of the proposed system lies entirely within the planned service area of the regional system as delineated in an approved areawide water quality management plan; and

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- 6. An agreement is signed by all involved municipalities which provides for a specified date of abandonment and connection. This intermunicipal agreement may be reviewed and approved by the department prior to facilities plan approval. The WPDES permits may contain schedules for facilities abandonment and connection.
- (c) Treatment facilities serving isolated nonresidential development. Nonresidential development includes things such as parks and recreational facilities, airports, highway oriented commercial facilities and institutions such as hospitals, nursing homes, prisons and schools. Proposals for new treatment facilities to serve nonresidential development may not be approved unless:
- 1. Joint treatment with other wastewater treatment systems is not feasible;
- 2. The proposed facilities are designed to treat only wastes generated by the proposed nonresidential development; and
- 3. The WPDES permit limits service to the proposed nonresidential development.
 - (d) Treatment facilities to serve new residential development.
- 1. Proposals for new treatment facilities intended to serve new residential development such as facilities for residential subdivisions, mobile home parks and condominium developments may be denied.
 - 2. Variances to this general prohibition may be granted:
 - a. Only after the department has considered:
 - 1) The general public interest;
 - 2) Environmental impacts;
 - 3) Socioeconomic impacts; and
- 4) The impact on orderly development and provision of general governmental services within the service area; and
 - b. Only after a finding that all of the following criteria are met:
- 1) The proposal is consistent with the department's responsibility to protect, maintain and improve the quality and management of the waters of the state;
- 2) The proposed facilities will be municipally owned, operated and maintained;
- 3) The proposed facilities will be more cost-effective in accordance with s. NR 110.09(1) (a) than other treatment and discharge alternatives; and
- 4) All other federal, state and local approvals and permits have been obtained.
- (e) Conformance with areawide water quality management plans. In addition to the requirements of pars. (a) through (d), the new sewage treatment facilities shall also be in conformance with any approved areawide water quality management plan. These plans may be consist-

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ent with the criteria in pars. (a) through (d). These plans as approved by the department may also contain additional criteria necessary to address regional or local considerations.

History: Cr. Register, November, 1974, No. 227, eff, 12-1-74; r. and recr. Register, December, 1978, No. 276, eff. 1-1-79; cr. (5), Register, August, 1981, No. 308, eff. 9-1-81.

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