

SNOHOMISH COUNTY COUNCIL  
Snohomish County, Washington



CO00016462

AMENDED ORDINANCE NO. 06-074

RELATING TO NUISANCE ODOR PREVENTION STANDARDS;  
ADOPTING A NEW SECTION 30.28.093 SCC AND ADDING NEW DEFINITIONS  
TO CHAPTER 30.91 SCC

WHEREAS, the regulation of certain odor emissions is necessary for the preservation and protection of the public health, safety, and welfare and the compatibility of various uses and activities within unincorporated areas of the county; and

WHEREAS, the Puget Sound Clean Air Agency was established to protect Puget Sound residents from air pollution by enforcing the federal Clean Air Act and state air quality laws and regulations; and

WHEREAS, federal and state air pollution laws make it unlawful to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property or which unreasonably interferes with enjoyment of life or property; and

WHEREAS, odor is different from traditional air pollutants regulated by the Puget Sound Clean Air Agency because odors are subjective, hard to quantify or measure, and tolerance varies from person to person; and

WHEREAS, odors are often fleeting and can occur naturally along beaches and wetlands in the summer; therefore, validating odor complaints and determining the source of said emissions is important; and

WHEREAS, in adopting the Clean Air Act, Congress stated that state and local governments retain the right to regulate air pollution and air emissions to the extent consistent with federal law (See, 42 USC § 7416); and

WHEREAS, in adopting the Washington Clean Air Act, the Legislature clearly stated that it is not a limitation on the authority of local government to regulate and eliminate nuisance odors (See, RCW 70.94.370); and

WHEREAS, the county council finds that wastewater treatment plants and other facilities with the potential to generate hydrogen sulfide and ammonia odor emissions should be designed, constructed, and maintained to prevent and control nuisance odor emissions and the adoption of permanent development regulations is necessary to protect the public health, safety and welfare; and

WHEREAS, preventing nuisance odor impacts is a major goal of both the County and responsible wastewater treatment entities and their governing bodies; therefore, potential odor emission impacts should be considered during design, construction, operation, and maintenance of wastewater facilities and associated odor control systems; and

WHEREAS, the potential for odor emissions is a result of the type and design of treatment or conveyance systems, operating and maintenance practices, topography, meteorology, and the density and proximity of the surrounding community and, therefore, effective odor prevention and control must take into consideration these factors; and

WHEREAS, the majority of odor control systems are installed at the wastewater treatment plant; however, collection systems may infrequently generate odors due to improper operation and maintenance, changes in flow or outside temperatures. Odor control systems may be necessary at some locations along a collection system; and

WHEREAS, on October 17, 2005, the Snohomish County Council adopted Emergency Ordinance No. 05-121 continuing interim development regulations relating to odor prevention standards for wastewater treatment facilities; and

WHEREAS, pursuant to RCW 36.70A.390, the County Council held a public hearing on Emergency Ordinance No. 05-121 on December 7, 2005; and

WHEREAS, at the public hearing there was testimony and written comment received from King County supporting the county's review of the Brightwater Wastewater Treatment Project and supporting the ordinance. The Alderwood Water and Wastewater District testified and requested amendments to the ordinance. In addition, the Lake Stevens Sewer District commented on the need for sufficient time to plan for the new requirements on projects already in process; and

WHEREAS, on December 20, 2005, Snohomish County executed an agreement with King County which included a Development Agreement governing the permitting of the King County Brightwater Wastewater Treatment Project. The Development Agreement specifies the odor standards that King County must meet, which are consistent with Emergency Ordinance No. 05-121; and

WHEREAS, Planning and Development Services Department staff held a sewer purveyor stakeholder informational meeting on February 8, 2006, to discuss the sewer purveyor's questions and concerns with complying with the development regulations set forth in Emergency Ordinance No. 05-121. All sewer purveyors and city staff from planning and public works departments within Snohomish County were invited. Twelve people from six jurisdictions (Alderwood Water and Wastewater District, King County, Mukilteo Water District, Olympus Terrace Sewer District, City of Everett, and

Snohomish County) attended and a collaborative discussion ensued regarding a broad range of issues arising out of the regulations; and

WHEREAS, on March 7, 2006, the City of Woodinville sent a letter to the County's Chief Engineering Officer regarding the Brightwater Wastewater Treatment Facility, stating that the City's concerns about odor problems from the plant had been adequately addressed by the County; and

WHEREAS, on March 9, 2006, the Alderwood Water and Wastewater District sent an email to the County's Chief Engineering Officer regarding the Emergency Ordinance No. 05-121, stating its concerns about the applicability section of the ordinance and requesting further clarification of the requirements; and

WHEREAS, on April 5, 2006, the Snohomish County Council adopted Emergency Ordinance No. 06-024 continuing interim development regulations relating to odor prevention standards for wastewater treatment facilities; and

WHEREAS, pursuant to RCW 36.70A.390, the County Council held a public hearing on Emergency Ordinance No. 06-024 on April 5, 2006; and

WHEREAS, Emergency Ordinance No. 06-024 expired on October 18, 2006; and

WHEREAS, the Planning Commission was briefed and held a public hearing on the proposed permanent odor prevention regulations ordinance on March 28, 2006. Due to the fact that no members of the public were in attendance despite public notice of the hearing, the Commission chose not to open public testimony but, instead, remanded the ordinance back to staff and requested additional information and research; and

WHEREAS, a second Planning Commission briefing and public hearing for the permanent odor prevention regulations was held on April 25, 2006. A motion approving the proposed ordinance failed. At the close of the public hearing, the Planning Commission determined that it would forward its comments to the County Council by letter dated April 25, 2006; and

WHEREAS, on May 23, 2006, the Planning Commission revisited the odor prevention regulations and a motion recommending denial of the ordinance, based on a report by three commissioners, was approved; and

WHEREAS, the County Council held a public hearing on October 4, 2006 continued to October 18 and November 8, 2006, to consider the entire record and hear public testimony on Ordinance No. 06-074 adopting permanent odor prevention regulations.

NOW, THEREFORE, BE IT ORDAINED:

Section 1. The foregoing recitals are incorporated herein as findings and conclusions as if set forth in full.

Section 2. The County Council makes the following additional findings of fact:

- A. In general, wastewater treatment plant processes emit the majority of hydrogen sulfide and ammonia odors; however, odors may be released from the collection system when improperly operated or maintained, during low flow events or during higher temperatures.
- B. Hydrogen sulfide and ammonia emissions are regulated as pollutants at the federal and state levels. In Washington, the Puget Sound Clean Air Agency regulates air pollutant emissions for all facilities, including wastewater treatment. The County's standards are designed to prevent hydrogen sulfide and ammonia nuisance odors at or beyond the boundary of the facility or use, thereby protecting the health, safety and welfare of the surrounding community.
- C. A Determination of Nonsignificance (DNS) was issued on March 27, 2006 for the proposed adoption of permanent regulations to prevent persistent hydrogen sulfide and ammonia odor emissions from certain facilities pursuant to the State Environmental Policy Act (SEPA) (Ch. 43.21 RCW). As such, the requirements of SEPA and Chapter 30.61 SCC have been satisfied.
- D. The County published legal notices in The Everett Herald providing notice in advance of public hearings held by the Planning Commission and the County Council. In addition, public comment has been solicited and received from stakeholders and members of the public on the proposed regulations as described herein.

Section 3. The County Council makes the following conclusions:

- A. The county has jurisdiction to regulate and prevent the emission of nuisance odors within the unincorporated areas of the County in order to protect the public health, safety and welfare.
- B. The proposed ordinance was broadly disseminated and made available to the public and interested parties had opportunities to provide written comments and testimony at public hearings after effective notice. Notice of the public hearings was published in a local newspaper of general circulation as required by the Snohomish County Code. Public hearings were held by the Planning Commission on March 28 and April 25, 2006, and by the County Council on September 18, 2006. Therefore, the requirements of public participation set forth in RCW 36.70A.035 and chapter 30.73 SCC have been met.

- C. The regulations adopted in this ordinance are consistent with the County's GMA comprehensive plan policies related to utilities, specifically policies relating to nuisance odors and wastewater collection and treatment. The regulations establish performance standards specifically for odor prevention requirements for wastewater treatment facilities and other facilities or uses that emit hydrogen sulfide or ammonia odors.

Section 4. The County Council bases its findings and conclusions on the entire record of the Planning Commission and the County Council, including all testimony and exhibits. Any finding, which should be deemed a conclusion, and any conclusion which should be deemed a finding, is hereby adopted as such.

Section 5. A new section is hereby added to Chapter 30.28 of the Snohomish County Code to read:

**30.28.093 Odor prevention requirements.**

(1) Purpose.

(a) The purpose of this section is to prevent certain detectable odors by establishing performance standards for hydrogen sulfide and ammonia emissions in order to prevent nuisance odor emissions, promote the health, safety, and welfare of the community and to maintain compatibility of surrounding land uses. This section is not to be construed to conflict with any applicable federal or state air emission standard or regulation.

(b) This section is not intended to prevent a single odor emission released as a direct result of necessary facility maintenance.

(2) Exemptions. This section does not apply to:

(a) agricultural activities as defined in SCC 30.91A.090, occurring on lands where agriculture is a legal use;

(b) solid waste facilities including landfills, transfer stations, drop boxes and refuse, leachate and landfill gas systems;

(c) side sewer systems;

(d) wastewater collection and conveyance system pipes under 24 inches in size;

(e) permitted yard waste processing facilities.

(f) wastewater treatment facilities with treatment plant capacity of less than 25 million gallons per day (MGD); and

(g) wastewater conveyance, collection and treatment systems, including treatment plants, or upgrades to such systems, in existence prior to December 31, 2004.

(3) Applicability. This section applies to:

(a) Permit applications for any new facilities which generate hydrogen sulfide or ammonia emissions or odors; and

(b) Permit applications for modification or expansion of facilities that generate hydrogen sulfide or ammonia odor emissions.

(4) Performance standard.

(a) There is hereby established a "no detectable odor emission standard" which is defined to mean odor emissions released from a facility or use of less than 0.8 part per billion (ppb) by volume of hydrogen sulfide and less than 2800 ppb by volume of ammonia emissions at or beyond the property boundary of a facility or use. This standard is based on a single highest three-minute concentration by volume averaged for a one-year period with worst-case meteorological conditions and summer emission loading levels. This standard excludes ambient air levels and is measured by current field instrument technology.

(b) All facilities and uses subject to SCC 30.28.093 shall comply with the no detectable odor emission standard.

(c) All facilities and uses subject to the provisions of this section shall comply with the following additional requirements and design standards for odor prevention systems, where needed to meet the odor emission standard:

(i) The odor prevention system shall be designed to remove hydrogen sulfide and ammonia compounds at peak load on a 24-hour, 365 days per year basis; and

(ii) The odor prevention system shall be sized and designed for the site to handle "worst-case" operating conditions when combinations of meteorological conditions, such as inversions and stagnant air, coincide with peak odor releases from treatment processes.

(d) Package lift/pump stations and collection system components are deemed to meet the design standards set forth in SCC 30.28.093(4)(a) and (c).

(5) New, modified or expanded facilities and uses. Applicable facilities shall be designed, constructed, operated and maintained to meet the no detectable odor emission standard set forth in SCC 30.28.093(4).

(6) Compliance Agreements. A development agreement approved under chapter 30.75 SCC or interlocal agreement approved under SCC 3.04.210 may add requirements and design standards or modify the standards in this section in order to meet the purpose of this chapter.

(7) Submittal Requirements.

(a) In addition to any other requirement of this title, all facilities and uses subject to this section shall submit information on a form, provided by the department, describing the facility or use and the processes or locations for potential emissions of hydrogen sulfide and ammonia. The department may require any of the following information:

(i) Engineering documentation showing the facility or use will meet the hydrogen sulfide and ammonia odor emission standard set forth in SCC 30.28.093(4) at or beyond the property boundary of the facility; or

(ii) Engineering documents for an odor control system appropriate for the site to prevent and control emissions of hydrogen sulfide or ammonia to meet the standard

set forth in SCC 30.28.093(4) of no detectable odor at or beyond the property boundary of such facilities and uses; or

(iii) Letter from an applicable sewer district approving and accepting a lift/pump station.

(b) Odor monitoring. Before beginning odor emissions from new or upgraded facilities or uses, the applicant shall submit an odor monitoring and response plan to ensure the operation and maintenance of the facility or use complies with the odor prevention requirements of this section. The plan shall include the standard sampling techniques, location and frequency of monitoring, and a proposed timeframe for response to nuisance odor complaints.

(8) Odor complaint response.

(a) When a complaint is received, the facility operator shall respond to the complainant, determine the potential location and source of odor emissions, and document in writing the steps taken in response to the odor complaint.

(b) If the performance standard set forth in SCC 30.28.093(4) is being met, no further action is required.

(c) If an odor emission violates the standard set forth in SCC 30.28.093(4), the facility operator shall select and implement the means to reduce the off-site odor impacts to the standard including, but not limited to, modifying the process, controlling emissions, improving dispersion, repairing or retrofitting equipment, or any combination subject to technical and financial feasibility.

(d) Facility operators shall keep complaint and response records available for County review consistent with state records retention requirements.

(9) Transportation of treatment waste and chemicals. In addition to any other requirements, sludge, biosolids, solid waste, and chemicals transported from facilities or uses subject to this section by vehicles such as trucks or trains shall be covered and secured to limit nuisance odors emanating from the vehicles.

**Section 6.** A new section is added to Chapter 30.91A of the Snohomish County Code to read:

**30.91A.XXX "Ambient air"** refers to the surrounding air or outdoor air. Generally, ambient air refers to air outside and surrounding an odor emission source location.

*This definition applies only to "Odor prevention" regulations in chapter 30.28 SCC.*

**Section 7.** A new section is added to Chapter 30.91B of the Snohomish County Code to read:

**30.91B.XXX "Biosolids"** means the nutrient-rich organic material produced by treating wastewater solids. After processing and treatment, they can be beneficially recycled as a fertilizer and soil amendment.

**Section 8.** A new section is added to Chapter 30.91H of the Snohomish County Code to read:

**30.91H.XXX "Hydrogen sulfide (H<sub>2</sub>S)"** means a colorless gas with a rotten egg odor often produced by the decay of plant or animal material. Most hydrogen sulfide in the air comes from natural sources such as decaying organic matter, seaweed on the beach or stagnant water in bogs. It is released from sewage sludge, liquid manure, sulfur hot springs, natural gas, and synthetic fuels.

**Section 9.** A new section is added to Chapter 30.91N of the Snohomish County Code to read:

**30.91N.XXX "Nuisance odor"** means detectable smells perceived by persons so as to interfere with the comfortable enjoyment of life or property.

*This definition applies only to "Odor prevention" regulations in chapter 30.28 SCC.*

**Section 10. Severability.** If any provision of this ordinance or its application to any person or circumstance is held invalid or illegal by a board or court of competent jurisdiction, the remainder of this ordinance or its application to any person or circumstance shall not be affected.

PASSED this 8<sup>th</sup> day of November, 2006

SNOHOMISH COUNTY COUNCIL  
Snohomish County, Washington

ATTEST:

Sheila McCallister  
Clerk of the Council, *asst.*

Kirke Sievers  
Kirke Sievers, Council Chair

APPROVED  
 EMERGENCY  
 VETOED

DATE: November 16, 2006

ATTEST:

Kerri Bailiff, asst.

Aaron G. Reardon, County Executive  
**MARK SOINE**  
Deputy Executive

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