

The Texas Natural Resource Conservation Commission (commission) proposes new §111.157, concerning Ground-Level Concentrations for Shipbuilding and Repair Sites.

#### EXPLANATION OF PROPOSED RULES

The proposed new §111.157 will create a case-by-case mechanism to determine standards for ground-level concentrations of particulate matter resulting from abrasive blasting at shipbuilding and repair sites. Shipyards which perform abrasive blasting on large ocean-going vessels or oil platforms are often unable to meet the property-line particulate standards in 30 TAC §111.155, concerning Ground Level Concentrations, because of the impracticability of enclosing blasting operations on such large structures and because the property line is considered to be the water's edge. In recent years, several shipyards have submitted permit applications proposing modification of their facilities, under 30 TAC Chapter 116, Subchapter B, concerning New Source Review Permits. The commission has been unable to issue permits to many of these shipyards because they have not been able to comply with the particulate matter standards in §111.155.

In recent years, the commission has granted exemptions from the requirements of §111.155 to Solar Turbines, Inc. (Solar), and Halter Bludworth Bond (Halter) at the October 1, 1997, and July 14, 1999, commission agendas. The exemptions were granted so that permits could be issued to these two well-controlled facilities that demonstrated that the public health would be protected. In both cases, the permit applicants cited a "lack of technological knowledge" under 30 TAC §101.11, concerning Exemptions from Rules and Regulations, as justification for exemption from compliance with §111.155.

The commission granted these exemptions under Texas Clean Air Act (TCAA), §382.023, concerning Orders, and §382.024, concerning Factors in Issuing Orders and Determinations. The factors in TCAA, §382.024 include: the character and degree of injury to or interference with the public's health and physical property; the source's social and economic value; the question of priority of location in the area involved; and the technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from the source.

Solar and Halter each committed to employing extensive controls at their facilities prior to requesting an exemption from the property-line ground-level concentration standards. Solar invested in an enclosed facility which could be used for blasting all but the largest objects and committed to: using non-silica blast media; purchasing adjacent property as a buffer; eliminating unsuitable work locations nearest to property lines; excluding the use of materials containing lead or chromium; and performing outdoor operations only between 6:00 a.m. and 9:00 p.m. to optimize dispersion conditions and minimize downwind impacts. Halter committed to using specular hematite (hematite) as an alternative blasting medium, using shrouds on both ends of each of the dry docks to contain the work area during all times that abrasive blasting or painting operations are conducted, using a shroud to encircle certain landside and dockside operations, spraying water into the hopper's exhaust pipes during unloading to reduce emissions of particulate matter, performing no more than 5.0% of the abrasive blasting operations between 8:00 p.m. and 6:00 a.m., and conducting extensive post-permit monitoring.

The commission believes that the use of hematite by Halter will advance the goal of reducing emissions from blasting facilities. Based on initial testing, the use of hematite was found to dramatically reduce emissions (compared to coal slag), and therefore diminish the negative health/environmental effects of abrasive blasting activities. Halter contended that although the initial purchase price of hematite is anticipated to be nearly four times the price of coal slag, the actual cost of using hematite will actually be competitive with coal slag. Halter specified two reasons for this. First, for the same amount of area being blasted only 60% as much hematite, by weight, is needed as compared to coal slag. Second, unlike coal slag, hematite can be recycled and reused as many as four or five times. In order to gather additional data on emissions resulting from the use of hematite and to verify that Halter meets the terms of the order granting the exemption from §111.155, the commission required extensive monitoring at the site. While such abrasives may have advantages for surface texturing (profiling), many coating-removal procedures also can be accomplished using water jetting as the coatings removal method.

Because virtually all shipyards that service large ocean-going vessels and oil platforms cannot meet the property-line ground-level concentration standards in §111.155, the commission is proposing new §111.157. The new section would allow the executive director to establish case-by-case ground-level concentration standards to shipyards which have controlled particulate emissions to the limits of technological knowledge. In order to qualify for the case-by-case standard, owners and operators would have to obtain a permit after the effective date of the proposed §111.157 and emissions from the facilities would have to undergo a case-specific toxicological and effects review to ensure protection of public health and welfare. The commission estimates that there are approximately 90 to 100 shipyards

that would be eligible for this case-by-case standard, and many of those may need to add controls in order to meet the requirements of the proposed section. The commission believes that it is more appropriate for the executive director to establish case-by-case ground-level concentration standards within the clear criteria laid out in the proposed rule, than for the commission to grant exemptions to §111.155 on an ad hoc basis.

The proposed §111.157(1) limits the use of the new rule to sites that perform abrasive blasting activities that fit within in the Standard Industrial Classification (SIC) Code 3731 and sites emitting air contaminants which cannot be further controlled or reduced because of a lack of technological knowledge. This new subsection is intended to limit use of the case-by-case ground-level concentration standard to those shipyards that service large ocean-going vessels and platforms. In addition, these facilities must be controlled within the limits of technological knowledge. The commission believes, at this time, that enclosure to the point of technical practicability and the use of a blast method having the lowest environmental impact may be considered the limits of technological knowledge.

The proposed §111.157(2) specifies that the site must be located on or adjacent to coastal waters which have measurable elevation changes because of normal tides. This provides further definition of the intent to limit the use of this new rule to shipyards which service large ocean-going vessels or platforms. Coastal waters would include any water affected by the ebb and flow of the ocean tides, and would include bays, estuaries, and the portions of rivers or bayous affected by the ocean tides.

The proposed §111.157(3) requires that the facility will operate under the authority of a permit obtained under Chapter 116, Subchapter B. That permit must be obtained on or after the effective date of this proposed rule. This requirement will ensure that commission staff have an opportunity for case-by-case review of proposed controls to determine if they reflect the limits of technological knowledge. The permit will provide the enforceable mechanism in which to include the new requirements.

The proposed §111.157(4) specifies that the facility undergo a case-specific toxicological and effects review to ensure protection of public health and welfare. The commission believes any case-by-case standard should be protective of public health and welfare.

The proposed §111.157(5) confirms that the ground-level concentration and emission limits established in the permit under paragraphs (3) and (4) of this proposed section will be the enforceable limits for the purposes of meeting Chapter 111. This statement alerts the permittee and the agency regional staff that the limits of the permit, and not §111.155, are the enforceable limits under which the facility must operate.

The existing §111.155 is amended with a statement referencing the conditions contained in the new proposed §111.157. This reference will facilitate use of the new rule and remove any confusion about applicability.

FISCAL NOTE

Bob Orozco, Technical Specialist with Strategic Planning and Appropriations, has determined that for the first five-year period the proposed new section to Chapter 111 is in effect there will be no significant fiscal implications for units of state or local government as a result of administration or enforcement of the proposed new section.

The proposed new section would allow the commission to permit shipyards and repair facilities which service large ocean-going vessels or oil platforms that are unable to meet the property-line ground-level particulate concentration standards. Shipyards which perform abrasive blasting on large ocean-going vessels or oil platforms are often unable to meet the property-line ground-level concentration standards because of the impracticability of fully enclosing blasting operations on such large structures and because the property line is considered to be the water's edge. The proposed new section would allow affected facilities to voluntarily apply for a permit with the proposed case-by-case property-line ground-level concentration standard based upon demonstration that the facility will control emissions to the limit of technological knowledge and economic practicability. Recently, the commission has granted individual exemptions from the property-line ground-level concentration standards in order to issue permits to well-controlled facilities that demonstrated that the public health would be protected through the use of innovative methods and technologies used to control emissions. The commission is encouraging shipyard facilities to determine how they can control their emissions and demonstrate that they have done so to the limit of technological knowledge and economic practicability.

Facilities that service large ocean-going vessels and drilling platforms and are seeking a permit with the proposed property-line ground-level concentration standard must undergo a case-specific toxicological and effects review to ensure protection of the public health and welfare. Applicants must be engaged in activities outlined in SIC code 3731 and must demonstrate that they are unable to further control or reduce emissions of air contaminants because of lack of technological knowledge. The site must also be located on or adjacent to coastal waters which have measurable elevation changes because of normal tides. Further, the proposed case-by-case review is intended to ensure that the facilities have controlled emissions within the limits of technological knowledge and economic practicability and that resulting off-property ground-level concentrations will not harm public health or physical property.

#### **PUBLIC BENEFIT**

Mr. Orozco also has determined that for each year of the first five years the proposed new section to Chapter 111 is in effect, the public benefit anticipated from enforcement of and compliance with the proposed new section will be a reduction of air contaminants emitted from affected shipyards and repair facilities, as well as the development of new innovative methods for controlling emissions from abrasive blasting.

There are currently between 90 and 100 shipyards in Texas with SIC Code 3731 which service large ocean-going vessels and drilling platforms. The purpose of the proposed section is to provide applicable shipyards with a property-line ground-level concentration standard which is capable of being met within the limits of technological knowledge and economic practicability and which protects the

public health and welfare. It is the intent of the proposed section that the case-by-case standards be limited to shipyards which service large ocean-going vessels or platforms. As stated in the EXPLANATION OF PROPOSED RULE section of this preamble, two facilities have already received individual exemptions from property-line ground-level concentration standards similar to the case-by-case standards proposed in this rulemaking.

For purposes of this fiscal note, the estimated total annualized cost to facilities implementing the provisions of the proposed section consists of the permit application fee, the cost of publishing notice of intent to obtain an air permit, and the cost of implementing the control methods sufficient to assure that emissions are controlled to the limits of technological knowledge.

Facilities seeking a permit from the commission pay an application fee of 0.15% of the capital cost of the project with a minimum fee of \$450 and a maximum fee of \$75,000. Applicants will have to publish notice of intent to obtain a permit in accordance with proposed amendments to 30 TAC Chapter 39, concerning Public Notice. The cost of publishing notice is estimated to be in the range of \$380 to \$3,600 inclusive of one display notice, one legal notice, and a possible alternative language notice. The alternative language notice is not always required. Costs vary significantly depending on the location of the facility and its proximity to large metropolitan areas. Small town/city newspapers generally charge much less than larger metropolitan newspapers for publication of a public notice.

It is not possible to estimate the cost of controlling emissions to the limit of technological knowledge for each facility because the requirements will be established on a case-by-case basis. The determination of permitted emissions will be based on the facility's ability to control particulate emissions to the limit of technological knowledge with due regard to practicality and economic viability. The commission anticipates that facilities will reduce particulate emissions as the emission control costs, abrasive media costs, and other factors of individual facility operations dictate. The two facilities which have obtained an exemption indicated that annualized costs per ton for reducing particulate emissions to meet the exemption may be as much as \$1,500/ton/year. Annualized emission reduction costs consist of annualized capital costs associated with the control technology, plus the additional annual operating costs associated with the applied control technology.

#### SMALL BUSINESS AND MICRO-BUSINESS IMPACT ANALYSES

The commission anticipates that many shipyards and repair facilities affected by the proposed new section will be small businesses and micro-businesses. Since the proposed new section requirements are voluntary, they are not anticipated to have an adverse effect on small businesses and micro-businesses. Although application for the case-by-case ground-level concentration standard is voluntary, it is anticipated that many shipyards may request the case-by-case standard because of the inability to meet the property-line emission standards in §111.155. For those businesses that request a permit with case-by-case standards under this rule, the annualized costs associated with emission reduction are anticipated to be in the approximate range of \$0 to \$1,500 per ton of emissions reduced.

The commission also anticipates that some small business and micro-business applicants whose emissions do have a significant effect on air quality will not be required to publish the display notice but will be required to publish the legal notice and the alternate language notice, when applicable, in accordance with proposed changes to Chapter 39. The costs are anticipated to be in the range of \$170 to \$600 for the legal notice and the alternative language notice. These costs have been mitigated in the proposed amendments to Chapter 39 by reducing the current requirements to publish notice of intent in two successive issues of a newspaper. Permit application fees and the cost of controlling emissions for small businesses and micro-businesses are estimated to be similar to other businesses. There are no anticipated adverse economic impacts to individuals, small businesses, or micro-businesses resulting from the addition of this new section. On the contrary, it is anticipated that many individuals, small businesses, and micro-businesses will actually benefit from the enhanced flexibility afforded by this proposed rule.

#### DRAFT REGULATORY IMPACT ANALYSIS

The commission has reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and has determined that the rulemaking is not subject to §2001.0225 because it does not meet the definition of a “major environmental rule” as defined in that statute. “Major environmental rule” means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The proposed

rulemaking is not anticipated to adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state because participation in the proposed section is voluntary and intended to assist affected facilities in complying with permit requirements. In addition, the proposed rulemaking is not a “major environmental rule” because it does not meet the applicability requirements of a “major environmental rule.” The proposed rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, nor exceed a requirement of a delegation agreement.

#### TAKINGS IMPACT ASSESSMENT

The commission has conducted a takings impact assessment for this rule under Texas Government Code, §2007.043. Promulgation and enforcement of the proposed rule will not create a burden on private real property because it only provides flexibility in meeting the ground-level concentration standard.

#### COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW

The commission has determined that this rulemaking action is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission’s rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the CMP. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3) relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has

reviewed this rulemaking action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and has determined that this rulemaking is consistent with the applicable CMP goal, 31 TAC §501.12(1), by protecting and preserving the quality and values of coastal natural resource areas. This rulemaking is consistent with 31 TAC §501.14(q), which requires the commission to protect air quality in coastal areas. Because of existing shipyards' social and economic value and their necessity to be located in the coastal zone, they will continue to be emitting sources which will need to be addressed for technically-practicable particulate reductions. Because the property line and the water line are coterminous, compliance with the particulate matter standards in §111.155 has not been possible. The commission anticipates that as owners and operators of shipyards propose innovations during the case-by-case permit and toxicological/health effects reviews, considerable decreases in existing emissions of particulate matter will result. Interested persons may submit comments during the public comment period on the consistency of the proposed rule with CMP goals and policies. The new section is consistent with 40 Code of Federal Regulations Part 51, Subpart D, Maintenance of National Standards (Particulate Matter).

#### PUBLIC HEARING

A public hearing on this proposal will be held on November 23, 1999, at 2:00 p.m. in Room 5108 of Building F, of the Texas Natural Resource Conservation Commission Complex, located at 12100 Park 35 Circle, Austin. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not occur during the hearing; however, an agency staff member will be available to

discuss the proposal 30 minutes prior to the hearing and will answer questions before and after the hearing.

Persons with disabilities who have special communication or other accommodation needs, who are planning to attend the hearing, should contact the Office of Environmental Policy, Analysis, and Assessment at (512) 239-4900. Requests should be made as far in advance as possible.

#### SUBMITTAL OF COMMENTS

Written comments may be submitted to Lola Brown, Office of Environmental Policy, Analysis, and Assessment, MC 205, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-4808. All comments should reference Rule Log Number 99027-111-AI. Comments must be received by 5:00 p.m., November 29, 1999. For further information, please contact Kerry Drake, Air Permits Division, (512) 239-1112, or Terry Leifeste, Policy and Regulations Division, (512) 239-1873.

#### STATUTORY AUTHORITY

The new section is proposed under the Texas Health and Safety Code, the TCAA, §382.011, §382.012, and §382.017. TCAA, §383.011, provides the commission with the authority to control the quality of the state's air. TCAA, §382.012, requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air. TCAA, §382.017, authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

The proposed new section does not implement any new state or federal requirements.

**SUBCHAPTER A : VISIBLE EMISSIONS AND PARTICULATE MATTER**  
**DIVISION 5 : EMISSION LIMITS ON NONAGRICULTURAL PROCESSES**

**§111.155. Ground-Level Concentrations.**

Except for the provisions in §111.157 of this title (relating to Ground-Level Concentrations for Shipbuilding and Repair Site), no [No] person may cause, suffer, allow, or permit emissions of particulate matter from a source or sources operated on a property or from multiple sources operated on contiguous properties to exceed any of the following net ground level concentrations: [.]

(1) two [Two] hundred micrograms per cubic meter of air sampled, averaged over any three consecutive hours; or [.]

(2) four [Four] hundred micrograms per cubic meter of air sampled, averaged over any one-hour period.

**§111.157. Ground-Level Concentrations for Shipbuilding and Repair Sites**

Section 111.155 of this title (relating to Ground Level Concentrations) shall not apply to abrasive blasting facilities at shipbuilding and repair sites which meet the following criteria:

(1) the site performs activities outlined in the Standard Industrial Classification Code, 3731, and is emitting air contaminants which cannot be further controlled or reduced because of a lack of technological knowledge;

(2) the site is located on or adjacent to coastal waters which have measurable elevation changes because of normal tides;

(3) the facility or facilities will operate under the authority of a permit obtained under Chapter 116, Subchapter B of this title (relating to New Source Review Permits), and the permit will be obtained on or after the effective date of this section;

(4) the facility or facilities have undergone a case-specific toxicological and effects review to ensure protection of public health and welfare; and

(5) ground-level concentration and emission limits established in the permit under paragraphs (3) and (4) of this section shall be the enforceable limits for the purposes of meeting the requirements of this chapter.