

W.J. BANG, M.D.

REEVES COUNTY JUDGE REEVES COUNTY COURTHOUSE 100 EAST FOURTH STREET SUITE 207 PECOS, TEXAS 79772

PHONE: (432) 445-5418 FAX: (432) 445-5389

July 16, 2014

To: Oil and Gas Operators in Reeves County

To Whom It May Concern,

We are writing to all operators involved in oil and gas exploration and production in Reeves County to inform them of the Outdoor Lighting Ordinance in effect and request that they light nighttime activities accordingly. We are one of seven counties set aside by the State of Texas as part of a Dark Sky Reserve in West Texas. The goal of the county ordinance is to prevent light from shining into the sky and interfering with ongoing astronomical research at the University of Texas McDonald Observatory near Fort Davis.

We recognize the need to light activities at night for safety. A joint project between McDonald Observatory and Pioneer Energy Services has demonstrated that glare from poorly aimed light fixtures can impair visibility. Aiming lights down and installing optional glare shields can put more light on the worksite, improve visibility, enhance safety, while helping to protect the dark skies overhead.

We ask that you take the following steps for all outdoor lighting fixtures which you own, operate, maintain or rent:

- 1) Adjustable fixtures Aim all adjustable floodlights down to prevent light from shining above the horizon or off the worksite. This applies particularly to portable light towers.
- 2) Shielding Shield all fixtures to prevent light from shining above the horizon. Most lighting manufactures offer optional glare shields which reflect wasted uplight back down onto the worksite for better visibility.

Your cooperation in this matter is appreciated.

Sincerely,

W. J. Bang, M.D.

Orders for Regulation of Outdoor Lighting In Reeves County, Texas

DEFINITIONS

In these orders:

- 1) Outdoor lighting" means any type of lighting, fixed or movable, designed or used for outdoor illumination of building or homes, including lighting for billboards, streetlights, searchlights used for advertising purposes, externally or internally illuminated on or off-site advertising signs, and area-type lighting. It does not include lighting equipment, required by law to be installed on motor vehicles or lighting required for the safe take-off and landing of aircraft.
- 2) "Installed" means the initial installation or replacement of outdoor lighting as defined herein made subsequent to the enactment of these orders and shall not pertain or apply to outdoor lighting existing at the time of enactment of these orders.
- 3) "Fully shielded" means that those fixtures shall be shielded in such a manner that light rays emitted by the fixture, either directly from the bulb or indirectly from the fixture, are projected below the horizontal plane running through the lowest point on the fixture where light is emitted.
- 4) "Spot light" means a light fixture having a narrow beam.
- 5) "Flood light"s mean a light fixture having a wide beam.
- 6) "Axis of illumination" means the midline of the beam of light emitted by a fixture.
- 7) "Lumen" means a measure of the amount of light emitted from a bulb.
- 8) "Color temperature" means the color of light emitted from a bulb measured by the Kelvin (K) temperature scale.

GENERAL REQUIREMENTS

- 1) Existing fixtures: Except for floodlights, outdoor lighting fixtures existing and legally installed prior to the effective date of the orders, are not subject to these orders.
- 2) Replacement fixtures: When existing lighting fixtures become inoperable, their replacements are subject to all the provisions of these orders.
- 3) New lighting installations: All outdoor lighting fixtures installed after the effective date of these orders shall be fully shielded, except fixtures of less than one thousand (1,000) lumens which shall have a color temperature of no more than 3,000 K.

- 4) Recreational facilities: No outdoor public recreational facility shall be illuminated by nonconforming means after midnight except to conclude a specific recreational activity in progress.
- 5) Outdoor building or landscaping illumination: The unshielded outdoor illumination of any building, landscaping or signing is prohibited except with the use of spot lights of less than 1,000 lumens and a color temperature of no more than 3,000 K, which shall be aimed to prevent light from being emitted away from the target of illumination.
- 6) Flood lights: For floodlights used for area lighting, the axis of illumination shall be adjusted to an angle not more than 20 degrees from the vertical line between the fixture and the ground (see Exhibits 1 and 2).
- 7) Communication towers: The use of white strobe lights at night is prohibited on communication towers except where required by state or federal law.
- 7) Mercury vapor: The installation of high pressure mercury vapor fixtures is prohibited after the effective date of the orders.

EXEMPTIONS

Any individual may submit a written request to the County Judge for a temporary exemption from the requirements of these orders: The request for the exemption shall contain as a minimum the following information:

- a) Proposed use of outdoor fight involved.
- b) Type of light fixture used, including manufacturer's model number.
- e) Total lumens of lamp or lamps.
- d) Proposed location of outdoor light.
- e) Beginning and ending date of proposed exemption.

ENFORCEMENT

A law enforcement officer of the State of Texas, the Sheriff, or any other officer of Reeves County shall make enforcement of these orders.

PENALTIES FOR VIOLATION

An individual or business adjudged guilty of violation of these orders shall be punished by a fine not to exceed \$500.00. Prior to receiving a citation for violation of this Order, an individual shall be given one warning and a ten day period of time in which to comply with the Order. A fine of \$500.00 shall be given each month thereafter for non-compliance.

EFFECTIVE DATE

The effective date of these orders shall be May 14 2012

W.J. Bang, M.D., County Judge, Reeves County, Texas

ATTEST

Dianne O. Florez, County Clerk

Reeves County, Texas

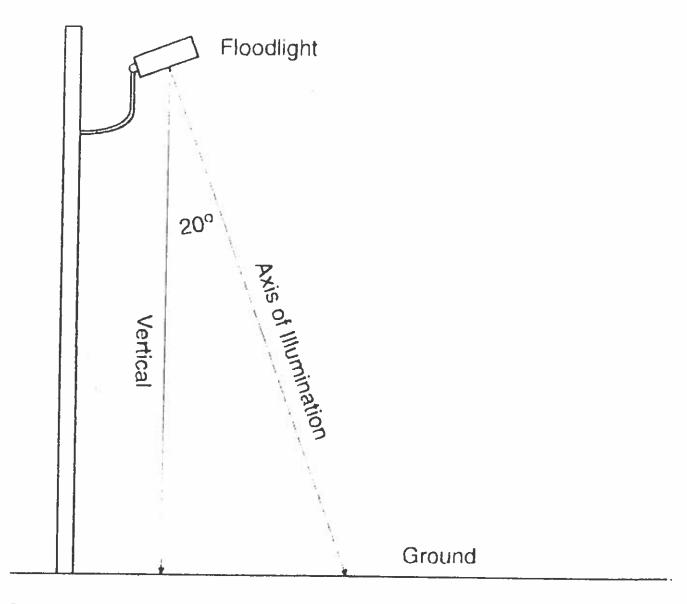


Exhibit 1. For floodlights used for area lighting, the axis of illumination shall be adjusted to an angle not more than 20 degrees from the vertical line between the fixture and the ground.

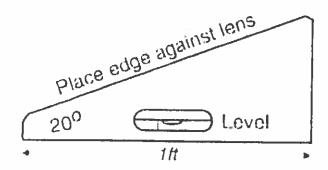


Exhibit 2. A tool for aiming lights as in Exhibit 1, above. Place the upper edge of the tool against the lens, and adjust the fixture so the bubble shows level