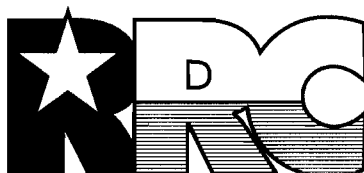
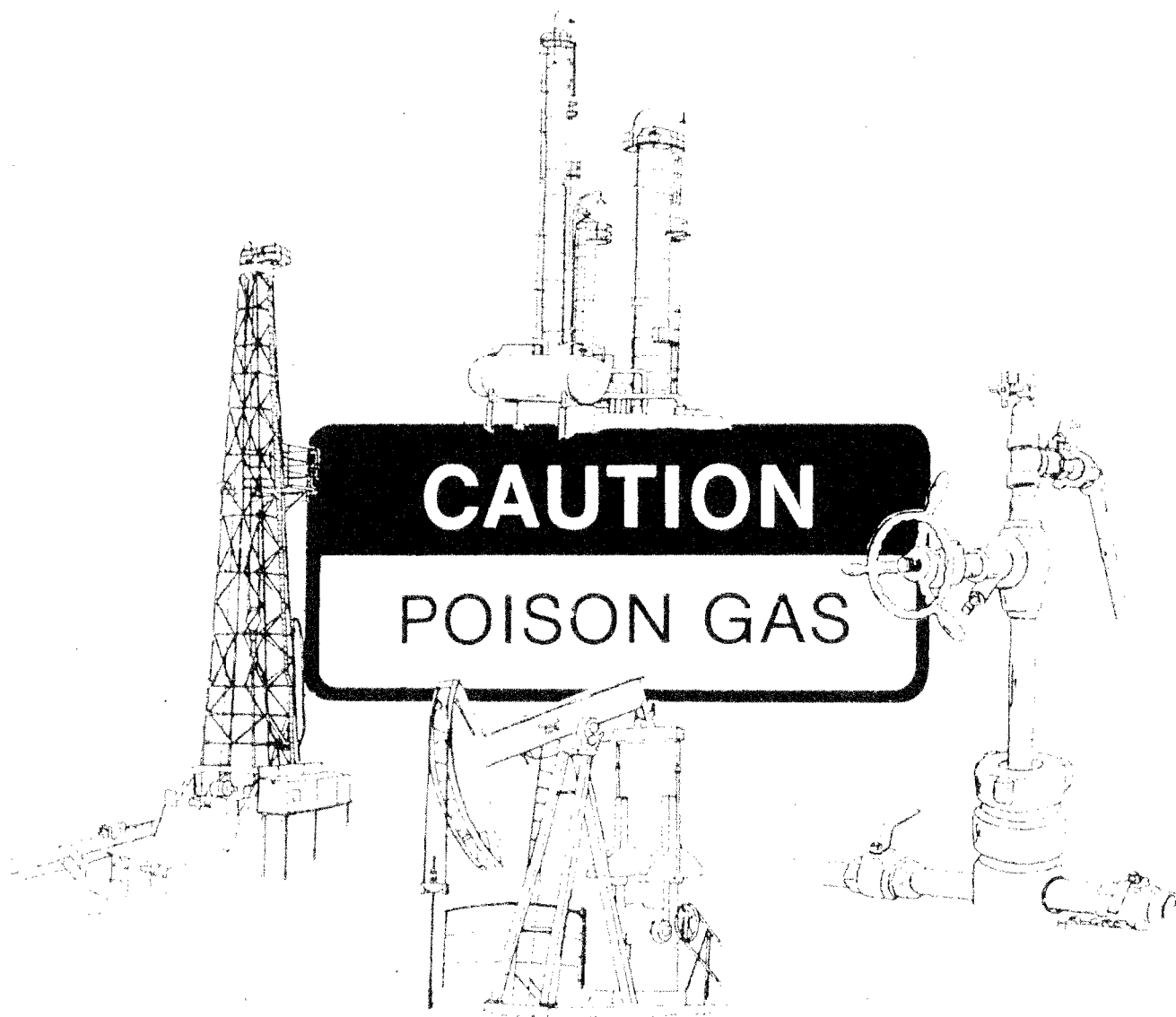


STATEWIDE RULE 36

HYDROGEN SULFIDE SAFETY



RAILROAD COMMISSION OF TEXAS
O I L & G A S D I V I S I O N

STATEWIDE RULE 36 HYDROGEN SULFIDE SAFETY

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INTRODUCTION

Hydrogen sulfide is a very deadly gas that can kill within minutes. Hydrogen sulfide gas is encountered in many oil and gas producing formations in the state of Texas and, therefore, can be present at drilling locations, producing wells, tank batteries, production facilities, gas plants, sweetening plants, pipelines, etc.

The purpose of this manual is to acquaint you with the hazards of hydrogen sulfide, the characteristics of hydrogen sulfide, the safety precautions necessary, and the requirements of statewide rule 36 relative to drilling, production, and transportation of hydrogen sulfide gas.

Rule 36 is designed for the protection of the general public from the hazards of hydrogen sulfide gas in oil and gas operations and does not pertain to industrial safety as such. The commission, however, believes that education and safety training are the best defense against the hazards of hydrogen sulfide, and that industry workers must be able to protect themselves if they are to help protect the general public.

ABBREVIATIONS

B.O.P.	-	BLOWOUT PREVENTOR
DST	-	DRILL STEM TEST
H₂S	-	HYDROGEN SULFIDE
PPM	-	PARTS PER MILLION
PSI	-	POUNDS PER SQUARE INCH
PSIA	-	POUNDS PER SQUARE INCH ABSOLUTE
R.O.E.	-	RADIUS OF EXPOSURE
SO₂	-	SULFUR DIOXIDE
S.G.	-	SPECIFIC GRAVITY

1% = 10,000 PPM or .01 Mol. Fraction

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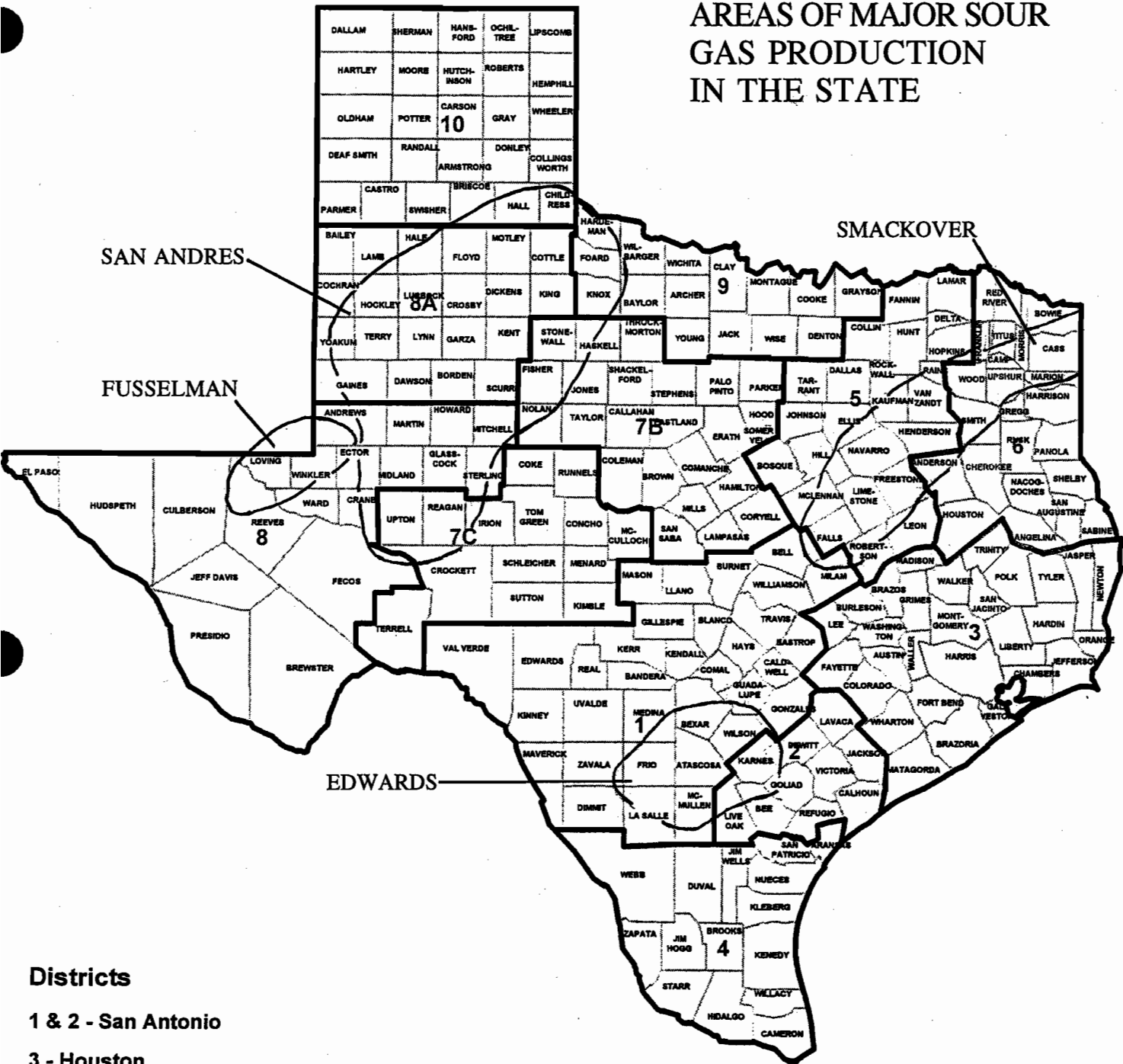
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OIL AND GAS DIVISION DISTRICT BOUNDARIES

AREAS OF MAJOR SOUR GAS PRODUCTION IN THE STATE



Districts

- 1 & 2 - San Antonio
- 3 - Houston
- 4 - Corpus Christi
- 5 & 6 - Kilgore
- 7B - Abilene
- 7C - San Angelo
- 8 & 8A - Midland
- 9 - Wichita Falls
- 10 - Pampa

CHARACTERISTICS OF H₂S

1. Colorless gas at room temperature
2. Boiling Point = -76° F (-60° C)
3. Soluble in liquid
4. Density = 1.19 x Air (Heavier than air)
5. Ignition Temperature = 500° F (260° C)
6. Flame is practically invisible
7. One combustion by-product is SO₂, which is also toxic.
8. Explosive at mixtures between 4.3% and 46%
9. Noxious at low concentrations (Smells similar to rotten eggs).
10. Corrosive to High Carbon Steel.

H₂S is also known by such names as:

**Sour Gas
Poison Gas
Rotten Egg Gas
Acid Gas
Sewer Gas
Sulfur Gas**