

INTRODUCTION

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TITLE

**HISTORY OF
E&P WASTE MANAGEMENT
IN THE
GULF OF MEXICO**



GOALS

HISTORY OF E&P WASTE MANAGEMENT IN THE GULF OF MEXICO

- MEMORABLE
- EXCITING
- ENTERTAINING



ANSWER

CAN'T BE DONE

NO CAN DO

FAT CHANCE

NOT LIKELY



WHY IS THIS SO ???

BECAUSE:

ALL WASTE MANAGEMENT PRACTICES

ARE HIGHLY CONTROLLED AND

RESTRICTED BY PREVAILING RULES AND

REGULATIONS



RESULT

**HISTORY OF
E&P WASTE
MANAGEMENT**

=

**EVOLUTION OF
ENVIRONMENTAL
REGULATIONS**



REGULATORY COMPLIANCE

AND WE ALL KNOW:

REGULATORY COMPLIANCE ISSUES ARE:

- **NOT VERY EXCITING**
- **GENERALLY NOT FUN**
- **CAN BE VERY COSTLY**



WASTE MANAGEMENT OPTIONS

OCS WASTE GENERATORS HAVE TWO WASTE MANAGEMENT OPTIONS:

POINT SOURCE DISCHARGE UNDER AN NPDES PERMIT

ONSHORE MANAGEMENT AS SOLID WASTE

EITHER OPTION REQUIRES COMPLIANCE WITH APPLICABLE REGULATIONS AT BOTH FEDERAL AND STATE LEVELS



FEDERAL REGULATIONS

POLLUTION PREVENTION

CWA - SPCC

OPA 90

WATER PROTECTION

CWA - NPDES

SDWA

WASTE MANAGEMENT

RCRA

CERCLA



CLEAN WATER ACT

1972 FEDERAL WATER POLLUTION CONTROL ACT

1977 CLEAN WATER ACT

EPA: SPILL PREVENTION (SPCC PROGRAM)

USCG: SPILL PREVENTION
(MARINE TRANSPORTATION RELATED)

EPA: NPDES PROGRAM (POINT SOURCE DISCHARGES)
GENERAL PERMITS FOR OCS FACILITIES



CLEAN WATER ACT

“The objective of this Act is to restore and maintain the chemical, physical and biological integrity of the Nations waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act---(1) it is the national goal that the discharges of pollutants into the navigable waters be eliminated by 1985.”



RCRA

1965 SOLID WASTE DISPOSAL ACT (garbage)

1970 RESOURCE RECOVERY ACT (recycling)

1976 RESOURCE CONSERVATION AND RECOVERY ACT

RCRA IS INTENDED TO:

protect human health and the environment

reduce or eliminate the generation of hazardous wastes

conserve energy and natural resources

provide for proper management/disposal of hazardous wastes



RCRA OIL AND GAS EXEMPTION

40 CFR 261.4(b)(5)

Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy



RESULT OF EXEMPTION

EXEMPTED E&P WASTE ARE NOT REGULATED
AT THE FEDERAL LEVEL WHEN TRANSPORTED
TO SHORE FOR DISPOSAL

ONLY SUBJECT TO REQUIREMENTS OF INDIVIDUAL
STATES WHERE THESE WASTES ARE MANAGED



OTHER RCRA EXEMPTIONS

40 CFR 261.4(b)

Solid wastes which are not hazardous wastes.

The following solid wastes are not hazardous wastes:

HOUSEHOLD WASTES

CROP WASTES RETURNED TO SOIL AS FERTILIZER

ANIMAL WASTES RETURNED TO SOIL AS FERTILIZER

MINING OVERBURDEN RETURNED TO MINE SITE

ASH FROM BURNING FOSSIL FUELS

CEMENT KILN DUST WASTE

ARSENIC-TREATED WOOD WASTE

USED-OIL STILL BOTTOMS USED TO MANUFACTURE ASPHALT

CERTAIN LANDFILL LEACHATE



STATE REGULATIONS

GENERALLY BECOME APPLICABLE WHEN:

WASTES ARE TRANSPORTED TO SHORE FOR DISPOSAL

WASTES ARE DISCHARGED INTO STATE WATERS
UNDER STATE DISCHARGE PERMITS



MAGIC MOMENTS IN E&P WASTE HISTORY

LATE 1970'S

**EPA BEGINS IMPLEMENTING HAZARDOUS
WASTE PROGRAM UNDER RCRA**

AMMENDMENTS TO HAZARDOUS WASTE PROGRAM APPEAR
IN FEDERAL REGISGER ON DAILY BASIS

EPA ISSUES RCRA EXEMPTION FOR CERTAIN OIL GAS WASTES

REGULATORY AUTHORITY FOR E&P WASTES TRANSFERRED TO
STATES

HAZ WASTE RULES AMMENDED CONSTANTLY 1980-1986



MAGIC MOMENTS IN E&P WASTE HISTORY

CIRCA 1980

EPA SPCC REGULATIONS BECOME EFFECTIVE

**SPCC PLANS REQUIRED FOR ALL ONSHORE AND OFFSHORE
NON-TRANSPORTATION-RELATED FACILITIES**

**ENGINEER'S CERTIFICATION
SECONDARY CONTAINMENT
STORMWATER DISCHARGE REQUIREMENTS
INSPECTION REQUIREMENTS
RECORDKEEPING REQUIREMENTS**



MAGIC MOMENTS IN E&P WASTE HISTORY

1981

EPA ISSUES FIRST OCS GENERAL NPDES PERMIT

STARTS AT OUTER BOUNDARY OF TERRITORIAL SEA

PRODUCED WATER: NO FREE OIL (SHEEN)
O/G 72 mg/l MONTHLY

WBM: NO FREE OIL (SHEEN)

OBM: NO DISCHARGE

CUTTINGS: NO FREE OIL (SHEEN)



MAGIC MOMENTS IN E&P WASTE HISTORY

1983

LOUISIANA DNR ISSUES AMMENDMENTS TO STATEWIDE ORDER 29B

ESTABLISHES STANDARDS FOR OFFSITE MANAGEMENT OF RCRA-EXEMPT E&P WASTES

CREATES DEFINITION OF NONHAZARDOUS OILFIELD WASTE (NOW)

IDENTIFIES SIXTEEN (16) CLASSES OF NOW

SETS STANDARDS FOR GENERATORS TRANSPORTING OFFSITE

SETS STANDARDS FOR COMMERCIAL FACILITIES

REQUIRES CLOSURE OF NON-PERMITTED COMMERCIAL SITES



MAGIC MOMENTS IN E&P WASTE HISTORY

CIRCA 1982-1984

**LA DNR PERMITS MARINE SHALE PROCESSORS
AS COMMERCIAL NOW DISPOSER**

CONVERTED CEMENT KILN FOR BURNING NOW TO GENERATE A
SOLID REUSE MATERIAL

CONVERTED FROM NATURAL GAS FUEL TO BURNING
HAZARDOUS SOLVENTS UNDER RCRA EXEMPTION FOR
RECYCLERS

STOPPED ACCEPTING NOW; CONTINUED TO BURN SOLVENTS

EXPANDED TO ACCEPT ANY HAZARDOUS WASTE TO BURN TO
GENERATE REUSE MATERIAL

FORCED BY LA DEQ TO OBTAIN FULL RCRA PERMITTING

NEVER RE-OPENED DUE TO PUBLIC OUTCRY



MAGIC MOMENTS IN E&P WASTE HISTORY

1986

EPA RE-ISSUES OCS GENERAL PERMIT

PRODUCED WATER: NO FREE OIL (SHEEN)
O/G 72 mg/l DAILY
O/G 48 mg/l MONTHLY AVG

WBM: NO FREE OIL (SHEEN)
TOXICITY LIMIT (MYSID SHRIMP)
NO USED OILS, DIESEL

OBM: NO DISCHARGE

WBM CUTTINGS: NO FREE OIL (SHEEN)

OBM CUTTINGS: NO DISCHARGE



MAGIC MOMENTS IN E&P WASTE HISTORY

1986

LOUISIANA DNR ISSUES AMMENDMENTS TO STATEWIDE ORDER 29B

ESTABLISHES STANDARDS FOR ONSITE MANAGEMENT OF RCRA-EXEMPT E&P WASTES

CONSTRUCTION - OPERATION STANDARDS FOR RESERVE PITS

PROHIBITION ON MOST PRODUCTION PITS

CLOSURE STANDARDS FOR INACTIVE PITS

COMMONLY CALLED "LOUISIANA NO-PIT RULE"



WHAT ABOUT TEXAS?

RAILROAD COMMISSION HAS AUTHORITY FOR REGULATING ALL OIL AND GAS WASTES

E&P WASTES: REGULATED UNDER STATEWIDE RULE 8

REQUIREMENTS FOR OILFIELD PITS

ONLY CERTAIN PITS ALLOWED BY RULE

INDIVIDUAL PERMITS FOR ALL OTHERS

REQUIREMENTS FOR TRANSPORTING WASTES OFFSITE





MAGIC MOMENTS IN E&P WASTE HISTORY

EPA OCS GENERAL PERMIT

RE-ISSUED BY EPA APPROX EVERY 5 YEARS

**DISCHARGE STANDARDS TIGHTENED AT
EACH RENEWAL**

RESULTS IN DECREASE IN DISCHARGES

**RESULTS IN MORE WASTES TRANSPORTED
TO SHORE FOR MANAGEMENT**



MAGIC MOMENTS IN E&P WASTE HISTORY

CURRENT OCS GENERAL PERMIT

DISCHARGE LIMITS MUCH MORE RESTRICTIVE AND COMPLICATED THAN ON PREVIOUS PERMITS

DISCHARGE OF ALL NON-AQUEOUS MUDS PROHIBITED

LIMITATIONS ON BARIUM CONTAMINANTS (Cd, Hg)

SEVERE RESTRICTIONS ON DISCHARGE OF CUTTINGS

PRODUCED WATER: 0/G 42 mg/L DAILY MAX
29 mg/l MONTHLY AVG



MAGIC MOMENTS IN E&P WASTE HISTORY

OTHER EPA GENERAL PERMITS

LOUISIANA TERRITORIAL SEA

COVERAGE AREA:	COASTLINE TO OUTER BOUNDARY OF TERRITORIAL SEA
DRILLING FLUIDS :	ZERO DISCHARGE
DRILL CUTTINGS :	ZERO DISCHARGE
PRODUCED WATER:	O/G 42 mg/l DAILY MAX 29 mg/l MONTHLY AVG
PRODUCED SAND:	ZERO DISCHARGE



MAGIC MOMENTS IN E&P WASTE HISTORY

OTHER EPA GENERAL PERMITS

COASTAL SUBCATEGORY

PERMITS FOR COASTAL WATERS OF LA AND TX

COVERAGE AREA: WATERS OF THE US LANDWARD
OF THE INNER BOUNDARY OF THE
TERRITORIAL SEA

DISCHARGE LIMITS: GENERALLY ZERO DISCHARGE
FOR MOST EFFLUENTS



WHAT HISTORY TEACHES US

FOR WASTES ORIGINATING FROM THE GULF

EPA HAS PRIMACY FOR REGULATING OFFSHORE WASTES
REGULATIONS ARE IMPLEMENTED THROUGH NPDES PERMITS
DISCHARGE LIMITS ARE CONTINUOUSLY TIGHTENED
RESTRICTIONS STARTED WITH ONSHORE SUBCATEGORY
THEN MOVED OUTWARD TO COASTAL , THEN TO
TERRITORIAL SEA, THEN TO OCS

EVENTUAL EPA GOAL IS ZERO DISCHARGE OF POLLUTANTS
RESULT IS REDUCTION IN WASTES DISCHARGED AND
INCREASE IN WASTES MANAGED ONSHORE UNDER
STATE REGULATIONS

