ANALISI STORICA PER INCIDENTI COINVOLGENTI GAS NATURALE – BANCA DATI MHIDAS –

Indagine storica gas naturale

La Banca Dati MHIDAS propone un totale di 598 eventi incidentali coinvolgenti gas naturale o metano, accaduti nel mondo, dei quali il più remoto risale al 1952 ed il più recente al 2005.

Gli incidenti identificati sono stati raggruppati per aree di origine secondo la seguente suddivisione:

Area di origine	N° incidenti
Processo	69
Stoccaggio	29
altro	500

I restanti eventi riguardano il trasporto tramite mezzi mobili o condotte, comunque al di fuori di aree di impianto, e non sono pertanto stati analizzati.

Gli eventi incidentali sono stati analizzati separatamente a seconda dell'area di origine.

1) IMPIANTI DI PROCESSO

Gli eventi in esame sono stati raggruppati a seconda dell'unità dove ha avuto origine l'incidente:

Unità	N° incidenti
Reattore	2
Scambiatore	2
Pompa	10
Tubazione	14
Turbina	1
Apparecchi di processo	10
Non precisato	30

Esaminando la tipologia degli incidenti individuati, è stata fatta la seguente suddivisione

Tipologia di evento	N° incidenti
Incendio	13
Jet fire	3
Esplosione	20
Esplosione confinata	2
Esplosione ed incendio	21
Rilascio	10

Mawa Gott.

Gli eventi in esame sono stati raggruppati anche secondo il tipo di causa che li ha generati:

Causa	N° incidenti
Eventi esterni	3
Errore umano	15
Impatto	1
Strumentazione	1
Errore umano in fase di progettazione	1
Rottura meccanica	10
Non specificata	38

2) STOCCAGGIO

Gli eventi in esame sono stati raggruppati a seconda dell'unità dove ha avuto origine l'incidente:

Unità	N° incidenti
Serbatoio in pressione	7
Serbatoio pressione atmosferica	13
Tubazione	1
Apparecchi di proceso	1
Non specificata	7

Esaminando la tipologia degli incidenti individuati, è stata fatta la seguente suddivisione

Tipologia di evento	N° incidenti
Incendio	7
Esplosione	7
Esplosione confinata	2
Esplosione ed incendio	10
Rilascio	3

Gli eventi in esame sono stati raggruppati anche secondo il tipo di causa che li ha generati:

Causa	N° incidenti
Eventi esterni	6
Errore umano	5
Impatto	1
Rottura meccanica	3
Non specificata	14

Di seguito viene riportato l'elenco degli incidenti coinvolgenti gas naturale o metano avvenuti in fase di processo estratti dalla Banca Dati MHIDAS:

Record 1 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 27/06/2005
- LO LOCATION: RUSSIA; DAGESTAN; KHASAVYURT
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-
- OG ORIGIN: PROCESS process-
- GC GENERAL CAUSE: EXTERNAL external-events
- SC SPECIFIC CAUSE: SABOTAGE sabotage-or-vandalism

AB - ABSTRACT: SABOTAGE WAS THOUGHT TO BE THE MOST LIKELY CAUSE OF AN EXPLOSION AT A GAS DISTRIBUTION DEPOT AS GAS SUPPLIES WERE NOT OPERATIONAL AT THE SITE AT THE TIME OF THE EXPLOSION. EXPLOSIVE DEVICE BELIEVED TO HAVE BEEN SET OFF. IR - INJURED (RANGE-SEARCHABLE): 0

Record 2 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 25/09/2004
- LO LOCATION: USA; DELAWARE; DELAWARE CITY
- MN MATERIAL NAME: METHANE
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: RELEASE release-
- OG ORIGIN: PROCESS process-; PVESSEL process-vessels
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: REFINERY UNIT WAS BEING SHUTDOWN FOR MAINTENANCE AS PLANT BREAKDOWNS LED TO RELEASE OF 9.5t HYDROGEN SULPHIDE and 27t METHANE, TOGETHER WITH OTHER POLLUTANTS.

Record 3 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 17/03/2004
- LO LOCATION: USA; OREGON; PORTLAND
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-
- OG ORIGIN: PROCESS process-; FIREDEQUIP fired-process-equipment
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: WORKERS RELIGHTING ELEMENT, USED TO HEAT GRAVEL / OIL / TAR MIXTURE TO MAKE ASPHALT, SPARKED NATURAL GAS EXPLOSION WHICH SEVERELY DAMAGED PLANT. 400lb CHUNK OF METAL PROPELLED HUNDREDS OF FEET INTO THE AIR, AND RESIDENTS FELT HOUSES SHAKE VIOLENTLY.

Record 4 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 01/04/2004
- LO LOCATION: IRAQ; TIKRIT
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-
- OG ORIGIN: PROCESS process-
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: MAINTAIN general-maintenance
- AB ABSTRACT: ONE FATALITY AND TWO FURTHER INJURIES FROM GAS EXPLOSION AT REFINERY UNER INSPECTION BY EXTERNAL ENGINEERS.
- KR KILLED (RANGE-SEARCHABLE): 1
- IR INJURED (RANGE-SEARCHABLE): 2

Record 5 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/01/2004

LO - LOCATION: AUSTRALIA; SOUTHERN AUSTRALIA; MOOMBA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-

DG - DAMAGE (US DOLLARS): US\$ <40.00 x 10E6

AB - ABSTRACT: EXPLOSION & SUBSEQUENT FIRE AT LIQUIDS RECOVERY PLANT OF GAS PRODUCTION FACILITY. GOVERNMENT REQUIRED LARGE USERS OF GAS TO SHUTDOWN TO ENSURE DOMESTIC SUPPLY. FIRE UNDER CONTROL OF EMERGENCY WORKERS IN 7hrs. INCIDENT CAUSED LARGE LOSS IN REVENUE.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 6 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 05/2003

LO - LOCATION: NIGERIA; SOUTH EAST NIGERIA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: NGL AND CONDENSATE EXPORTS HALTED AFTER FIRE AT GAS FACILITY. NO

INJURIES OR RELEASE REPORTED.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 7 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/04/2003

LO - LOCATION: NETHERLANDS; GELEEN

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; FIREDEQUIP fired-process-equipment

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: 3 FATALITIES AND 2 INJURIES INCURRED FOLLOWING EXPLOSION IN GAS FIRED OVEN. INCIDENT FOLLOWED MAINTENANCE WORK ON REACTOR WITHIN MELAMINE UNIT.

KR - KILLED (RANGE-SEARCHABLE): 3

IR - INJURED (RANGE-SEARCHABLÉ): 2

Record 8 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 02/05/2002

LO - LOCATION: MALAYSIA; TERENGGANU; KERITH

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: EXPLOSION AND FIRE OCCURRED WHEN WORKERS CARRYING OUT MAINTENANCE ON A HIGH PRESSURE FLARE LINE. MEN ADMITTED TO HOSPITAL AND TWO LATER DIED. FIRE EXTINGUISHED IN 30 MINUTES, NO MAJOR DAMAGE TO PLANT.

KR - KILLED (RANGE-SEARCHABLE): 2

IR - INJURED (RANGE-SEARCHABLE): 5

Record 9 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/03/2002

LO - LOCATION: USA; OKLAHOMA; STRAIGHT

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

AB - ABSTRACT: EXPLOSION IN COMPRESSION STATION AT GAS PROCESSING PLANT DAMAGED

BUILDING AND CAUSED FIRE AND GAS LEAK. NEARBY SCHOOL AND EMPLOYEES EVACUATED.

IR - INJURED (RANGE-SEARCHABLE): 2

Record 10 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 10/04/2001

LO - LOCATION: USA; KANSAS; CONWAY

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: GASCLD gas-cloud

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: RESIDENTS WERE EVACUATED FOR ABOUT THREE HOURS AFTER A VOLATILE GAS CLOUD FORMED OVER A NATURAL GAS FACILITY. THE SOURCE OF THE LEAK WAS TRACKED DOWN TO A SECTION OF PIPE, WHICH WAS REPAIRED.

Record 11 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 22/03/2001

LO - LOCATION: SOUTH KOREA; INCHON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-; PVESSEL process-vessels

AB - ABSTRACT: A FIRE IN A GAS COMPRESSION UNIT LED TO A HALVING OF PRODUCTION FOR 7 DAYS TO ALLOW REPAIRS.

Record 12 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/07/2001

LO - LOCATION: KUWAIT; MINA AL-AHMADI

- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: RELEASE release-
- OG ORIGIN: PROCESS process-; PIPEWORK pipework-
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: MAINTAIN general-maintenance
- AB ABSTRACT: SIX WORKERS WERE INJURED DURING MAINTENANCE WORK ON FLARE LINE.
- IR INJURED (RANGE-SEARCHABLE): 6

Record 13 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 30/01/2001

- LO LOCATION: RUSSIA; TATARSTAN; MENDELEYEVSK
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; MACDRIVE process-machinery-drives

AB - ABSTRACT: THE BLAST OCCURRED WHEN A GAS TURBINE WAS STARTED UP, TEARING OFF

- THE ROOF OF THE NITRIC ACID SECTION OF THE PLANT.
- KR KILLED (RANGE-SEARCHABLE): 3

Record 14 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 14/07/1999

LO - LOCATION: MEXICO; TAMAULIPAS; REYNOSA

MN - MATERIAL NAME: NATURAL GAS
MC - MATERIAL CODE: 1971
IT - INCIDENT TYPE: FIRE fire-; GASCLD gas-cloud
OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors
AB - ABSTRACT: A GAS LEAK OCCURRED IN A GAS COMPRESSION UNIT AT A PLANT THAT
SUPPLIES GAS PIPELINES ON THE MEXICO/US BORDER.

Record 15 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 07/06/1999

LO - LOCATION: UK; GUERNSEY

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: GASCLD gas-cloud

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

SC - SPECIFIC CAUSE: GLANDSEAL leaking-gland-or-seal

AB - ABSTRACT: GAS DETECTOR ALARMS WERE TRIGGERED WHEN A FAULTY PUMP SEAL RELEASED A SMALL AMOUNT OF GAS. PUMPING OPERATIONS WERE SHUT DOWN AS A PRECAUTION BUT NO FURTHER INCIDENT RESULTED.

Record 16 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 20/03/1999

LO - LOCATION: NIGERIA; NIGER DELTA; OBITE

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: AT LEAST 5 PEOPLE WERE KILLED IN AN EXPLOSION AT A NATURAL GAS FACILITY. THE BLAST OCCURRED WHEN WELDING GAS WAS ACCIDENTALLY IGNITED.

KR - KILLED (RANGE-SEARCHABLE): 6

Record 17 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 27/01/1999

LO - LOCATION: CANADA; BRITISH COLUMBIA; TAYLOR

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-

DG - DAMAGE (US DOLLARS): US\$ >20.00 x 10E6

GC - GENERAL CAUSE: MECHANICAL mechanical-failure; INSTRUMENT instrument-failure

AB - ABSTRACT: A TOWN WAS EVACUATED AFTER AN EXPLOSION AT A NATURAL GAS PLANT. PRELIMINARY INVESTIGATION SUGGESTS THAT A MECHANICAL FAILURE IN METER PROVING EQUIPMENT IS RESPONSIBLE. FIRECREWS HAD TO LET THE FIRE BURN UNTIL ALL THE GAS IN THE PLANT WAS USED UP.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 15

Record 18 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 25/09/1998

LO - LOCATION: AUSTRALIA; VICTORIA; SALE

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; VAPFIRE vapour-or-flash-fire

OG - ORIGIN: PROCESS process-

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MANAGEMENT general-management-error

AB - ABSTRACT: 2 MEN WERE KILLED AND 8 INJURED FOLLOWING AN EXPLOSION AND FIRE AT A GAS PROCESSING PLANT. GAS SUPPLIES ACROSS THE STATE WERE CUT OFF. THE OPERATORS ARE BEING BLAMED FOR THE INCIDENT. A LEAK WAS FOLLOWED BY A BLAST OF CONDENSATE, FOLLOWED BY AN EXPLOSION KR - KILLED (RANGE-SEARCHABLE): 2 IR - INJURED (RANGE-SEARCHABLE): 8

Record 19 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 14/08/1998 LO - LOCATION: USA; FLORIDA; PERRY MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-; FIREBALL fireball-OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors GC - GENERAL CAUSE: EXTERNAL external-events SC - SPECIFIC CAUSE: LIGHTNING lightning AB - ABSTRACT: LIGHTNING STRIKE SET FIRE TO A NATURAL GAS COMPRESSOR STATION. THE RESULTING EXPLOSIONS SENT A FIREBALL 600ft INTO THE AIR. 5 PEOPLE WERE INJURED. GAS

SUPPLIES TO THE WHOLE OF THE FLORIDA PENINSULA WERE SHUT OFF. RESIDENTS WITHIN 2 MILES WERE EVACUATED

IR - INJURED (RANGE-SEARCHABLE): 5

Record 20 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 02/04/1998

LO - LOCATION: RUSSIA; DAGHESTAN; NOVOLAKSKOYE

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: THE METERING UNIT OF THE NATURAL GAS DISTRIBUTION STATION WAS ROCKED BY AN EXPLOSION. A FIRE ALSO OCCURRED.

Record 21 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 26/07/1997

LO - LOCATION: USA; LOUISIANA; VENICE

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-; HEATXCHANG heat-exchangers

AB - ABSTRACT: A FIRE OCCURRED IN A HEATER IN A GAS PROCESSING UNIT. PRODUCTION INTERRUPTED FOR FOUR DAYS. OFFSHORE PRODUCERS WERE NOT AFFECTED.

Record 22 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 24/06/1997 LO - LOCATION: KUWAIT MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: FIRE fire-OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors AB - ABSTRACT: A FIRE OCCURRED IN A GAS COMPRESSION UNIT AT A GAS BOOSTING STATION

KILLING 1 PERSON. OPERATIONS WERE RESUMED IMMEDIATELY AFTER THE BLAZE WAS BROUGHT UNDER CONTROL, WHICH TOOK LESS THAN 1 HOUR. KR - KILLED (RANGE-SEARCHABLE): 1

Record 23 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/04/1997 LO - LOCATION: UK; CHESHIRE; RUNCORN MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-OG - ORIGIN: PROCESS process-; PIPEWORK pipework-AB - ABSTRACT: EXPLOSION AT GAS WORKS INJURED NINE WORKERS, FOUR SERIOUSLY. 10 FIRE ENGINES TACKLED THE BLAZE. LOCAL HOUSES EVACUATED. BLAST OCCURRED DURING WORK ON GAS MAIN. CONTRACTORS DIGGING DITCH TO INVESTIGATE LEAK MAY HAVE CREATED SPARK WHICH CAUSED BLAST. IR - INJURED (RANGE-SEARCHABLE): 9

Record 24 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 20/05/1996

LO - LOCATION: USA; TEXAS; SONORA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

AB - ABSTRACT: 30 inch, 550 million scfd PIPELINE & COMPRESSION STATION WERE SHUTDOWN FOLLOWING EXPLOSION WHICH INCURRED 1 INJURY. OPERATION IS EXPECTED TO RESUME AT 80% RATE IN THE SHORT TERM UNTIL COMPRESSION CAN BE RESTARTED. IR - INJURED (RANGE-SEARCHABLE): 1

Record 25 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/12/1995

LO - LOCATION: USA; HAWAII; OAHU

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: TORCH torch-or-jet-fire

OG - ORIGIN: PROCESS process-; FIREDEQUIP fired-process-equipment

GC - GENERAL CAUSE: PROCOND upset-process-conditions

AB - ABSTRACT: CATALYTIC CRACKER UNABLE TO ACCEPT COOL BATCH OF FUEL AT REFINERY SETTING OF CHAIN REACTION WHICH SENT BUTANE, METHANE, ETHANE & PROPANE TO SMOKE STACK. PILOT LIGHTS IGNITED GAS AS IT ENTERED AIR, BUT SIZE OF EMISSION TOO GREAT TO BURN CLEANLY.

Record 26 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 21/01/1995

LO - LOCATION: KUWAIT; UMM QADIR

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: RELEASE release-; EXPLODE explosion-

OG - ORIGIN: PROCESS process-; PVESSEL process-vessels

AB - ABSTRACT: EXPLOSION FOLLOWED RELEASE OF GAS FROM GLYCOL DEHYDRATION UNIT ASSOCIATED WITH COMPRESSION OF NATURAL GAS PRODUCED FROM OILFIELDS. IR - INJURED (RANGE-SEARCHABLE): 7

Record 27 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 16/03/1994

LO - LOCATION: RUSSIA; BASHKORTOSTAN

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: EXPLOSION WITHIN GAS COMPRESSION STATION BELIEVED TO HAVE BEEN DUE TO FAULTY PUMP.

Record 28 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 25/03/1993 LO - LOCATION: VENEZUELA; MARACAIBO MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-OG - ORIGIN: PROCESS process-AB - ABSTRACT: EXPLOSION & FIRE DURING MAINTENANCE AT GAS COMPRESSION PLANT. 1 KILLED & OTHERS INJURED. CRUDE OIL PRODUCTION SHUTDOWN. KR - KILLED (RANGE-SEARCHABLE): 11 IR - INJURED (RANGE-SEARCHABLE): 2

Record 29 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 10/08/1992 LO - LOCATION: UK; SCOTLAND; ST FERGUS MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-OG - ORIGIN: PROCESS process-; PVESSEL process-vessels AB - ABSTRACT: EXPLOSION IN GAS EVACUATION PLANT THREATENS TO DELAY COMMISSIONING OF GAS SEPARATION PLANT. EXPLOSION OCCURED IN GAS PROCESSING HEATER ONLY NINE DAYS AFTER COMMISSIONING BEGAN, BUT NO DAMAGE TO MAIN SUPPLY LINES. 1 INJURY REPORTED.

IR - INJURED (RANGE-SEARCHABLE): 1

Record 30 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 15/04/1992 LO - LOCATION: VENEZUELA; JUSEPIN MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-OG - ORIGIN: PROCESS process-AB - ABSTRACT: 1 KILLED & 34 SLIGHTLY INJURED AFTER EXPLOSION & FIRE SPARKED BY LEAK FROM NATURAL GAS PLANT. SOURCE CAPPED IMMEDIATELY BY AUTOMATIC VALVES. SABOTAGE UNLIKELY. MINIMAL DAMAGE REPORTED AT FACILITY. KR - KILLED (RANGE-SEARCHABLE): 1

IR - INJURED (RANGE-SEARCHABLE): 34

Record 31 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 22/02/1992
LO - LOCATION: MEXICO; ECATEPEC
MN - MATERIAL NAME: NATURAL GAS
MC - MATERIAL CODE: 1971
IT - INCIDENT TYPE: FIRE fire-; EXPLODE explosionOG - ORIGIN: PROCESS processAB - ABSTRACT: FIRE AT PLANT IN MEXICO CITY SUBURB FOLLOWED BY EXPLOSION DURING
ATTEMPT TO CONTROL BLAZE. 2 SOLDIERS KILLED. 3 GUARDS & SOLDIER WITH SERIOUS
BURNS.
KR - KILLED (RANGE-SEARCHABLE): 2
IR - INJURED (RANGE-SEARCHABLE): 3

Record 32 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 15/02/1992 LO - LOCATION: GERMANY; VOHBURG MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-OG - ORIGIN: PROCESS processAB - ABSTRACT: EXPLOSION IN BOILER AS NATURAL GAS FED TO BURNER. SEVERE DAMAGE TO GENERATOR, BOILER AND PIPEWORK.

Record 33 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/02/1992

LO - LOCATION: USA; TEXAS; KATY

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: FIRE OCCURED AT NATURAL GAS PROCESSING PLANT. PLANT SHUTDOWN WHILST INVESTIGATIONS HELD INTO CAUSE OF BLAST.

Record 34 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 11/03/1991

LO - LOCATION: MEXICO; COATZACOALCOS; PAJARITOS

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

DG - DAMAGE (US DOLLARS): US\$ <300.00 x 10E6

GC - GENERAL CAUSE: IMPACT impact-failure

AB - ABSTRACT: EXPLOSIONS & FIRE IN VINYL CHLORIDE MONOMER UNIT OF PETROCHEMICAL REFINERY. OVERPRESSURE IN 250mm PIPE CAUSED PROPANE TO ESCAPE AND BE IGNITED. 3 KILLED & 329 INJURED, MOST NOT SERIOUSLY. VCM PRODUCTION HALTED BUT NO MAJOR PLANT DAMAGE.

KR - KILLED (RANGE-SEARCHABLE): 3

IR - INJURED (RANGE-SEARCHABLE): 329

Record 35 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 05/12/1989

LO - LOCATION: UK; GREATER MANCHESTER; PARTINGTON

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: UNCONEXP unconfined-explosion

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

AB - ABSTRACT: PIPEWORK BEING COOLED DOWN PRIOR TO EXPORT OF GAS. GAS DRAINED INTO BURNER AND FLASHED BACK IGNITING GAS IN THE VICINITY.

IR - INJURED (RANGE-SEARCHABLE): 2

Record 36 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 28/11/1990

LO - LOCATION: PAKISTAN; SUI

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: EXPLOSION AND FIRE IN GAS FIELD PURIFICATION PLANT. FIRE RAGED FOR 3hrs. ENGINEER AND SUPERVISOR KILLED. 41 INJURED, 12 WITH SERIOUS BURNS.

KR - KILLED (RANGE-SEARCHABLE): 2

IR - INJURED (RANGE-SEARCHABLE): 12

Record 37 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 20/06/1990

LO - LOCATION: USA; LOS ANGELES; PATTERSON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

AB - ABSTRACT: EXPLOSIONS OCCURED AT NATURAL GAS PROCESSING PLANT WHEN EMPLOYEES TRIED TO RESTART COMPRESOR UNIT. 2 INJURED. PLANT SHUTDOWN FOR 3 - 4 WEEKS.

IR - INJURED (RANGE-SEARCHABLE): 2

Record 38 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 24/11/1987

LO - LOCATION: USA; CALIFORNIA; TORRANCE

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIREBALL fireball-

OG - ORIGIN: PROCESS process-; REACTOR reactor-

DG - DAMAGE (US DOLLARS): US\$ 15.00 x 10E6

AB - ABSTRACT: EXPLOSION AT ALKYLATION UNIT OF OIL REFINERY SENT FIREBALL OF METHANE 300ft INTO AIR. THE FIRE WHICH CONTINUED INTO NEXT DAY WAS ALLOWED TO BURN ITSELF OUT. THE 2 REFINERY WORKERS SLIGHTLY INJURED. 20 FIRE COMPANY'S FOUGHT BLAZE.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 2

Record 39 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 17/07/1974

LO - LOCATION: GERMANY; DORTMUND-DERNE

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: UNCONEXP unconfined-explosion

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: COKE-OVEN GAS ESCAPED FROM A LEAKING PIPE INTO THE OPEN. AN EXPLOSIVE CLOUD WAS FORMED AND IGNITED. THE EXPLOSION CAUSED SERIOUS INJURIES AND MATERIAL DAMAGE.

KR - KILLED (RANGE-SEARCHABLE): 2

IR - INJURED (RANGE-SEARCHABLE): 14

Record 40 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/04/1975

LO - LOCATION: JAPAN; OKAYAMA; KURSHIKI

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: RELEASE release-; FIRE fire-

OG - ORIGIN: PROCESS process-; HEATXCHANG heat-exchangers

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance; CONNECTING failure-to-connect-or-disconnect AB - ABSTRACT: DURING HEAT EXCHANGER REPAIR ON BENZENE PLANT MIXED METHANE/HYDROGEN CONTAINED IN COLD BOX LEAKED FROM IMPROPERLY SPADED VALVE. WELDING SPARK IGNITED GAS

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 11

Record 41 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 14/05/1977

LO - LOCATION: MEXICO; TAMAULIPAS; REYNOSA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: FIRE FOLLOWING EXPLOSION BURNED OUT OF CONTROL FOR 3hrs AT PETROLEUS MEXICANOS NATURAL GAS REFINERY. PLANT SERIOUSLY DAMAGED, NO INJURIES OR DEATHS. CAUSE OF BLAZE NOT ESTABLISHED.

Record 42 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 14/04/1975

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; REACTOR reactor-

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: GENERALOP general-operational; COMMUNICAT communications; DESIGN design-error

AB - ABSTRACT: A METHANE/OXYGEN EXPLOSION OCCURRED IN GAS REFORMING UNIT KILLING 7 MEN. SITUATION AROSE DUE TO INADEQUATE DESIGN AND HUMAN ERROR. ENQUIRY RESULTED IN RECOMMENDATIONS TO IMPROVE PLANT CONTROL AND SAFETY. OPERABILITY STUDIES SUGESTED.

KR - KILLED (RANGE-SEARCHABLE): 7

Record 43 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 04/07/1978

LO - LOCATION: GERMANY; SADYA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; PUMP pumps,-compressors

AB - ABSTRACT: EXPLOSION AND FIRE IN COMPRESSION STATION OF NATURAL GAS PIPELINE.

COST OF DAMAGE WAS QUOTED AS "CONSIDERABLE". CASUALTIES = 2 KILLED AND 2 INJURED.

KR - KILLED (RANGE-SEARCHABLE): 2

IR - INJURED (RANGE-SEARCHABLE): 2

Record 44 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 15/04/1978

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: RELEASE release-; GASCLD gas-cloud

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

DG - DAMAGE (US DOLLARS): US\$ 80.00 x 10E6

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

SC - SPECIFIC CAUSE: CORRODE corrosion

AB - ABSTRACT: A 34.5 BAR PIPE AT A GAS OIL SEPARATION PLANT DEVELOPED A LEAK WHICH GREW IN SIZE BUT EVENTUALLY BROKE RELEASING A LARGE GAS CLOUD. IGNITION SOURCE 450M AWAY. 7M SECTION OF PIPE STRUCK A SPHEROID 120M AWAY CAUSING A 2ND CLOUD IGNITED BY 1ST.

KR - KILLED (RANGE-SEARCHABLE): 4

Record 45 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 15/09/1981

LO - LOCATION: USA; TEXAS; GOLDSMITH

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

AB - ABSTRACT: 7 WORKERS BURNED AT PHILLIPS PETROLEUM PLANT WHEN CAUGHT BETWEEN 2 FIRES IN RUPTURED PRESSURISED PIPELINES DURING ROUTINE MAINTENANCE. FIRE LED TO 3 EXPLOSIONS. FIRE EXTINGUISHED 5 HOURS AFTER FIRST EXPLOSION.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 7

Record 46 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 25/03/1973

LO - LOCATION: CANADA; INUVIK

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: NATURAL GAS FIRE AT "WILDCAT" WELL STARTED WHEN THERE WAS A SUDDEN RELEASE OF GAS PRESSURE AT A DEPTH OF 3000ft. RIG OWNED BY ADECO DRILLING AND ENG. CO.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 1

Record 47 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 09/10/1980

LO - LOCATION: USA; KENTUCKY; INDEPENDENCE

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: RELEASE release-; EXPLODE explosion-

OG - ORIGIN: PROCESS process-; FIREDEQUIP fired-process-equipment

GC - GENERAL CAUSE: MECHANICAL mechanical-failure; HUMAN human-factor

SC - SPECIFIC CAUSE: OVERPRES overpressure; COMMUNICAT communications

AB - ABSTRACT: A COUPLING ON A GAS METER SEPARATED ALLOWING A LARGE RELEASE OF NATURAL GAS, WHICH EXPLODED AND BURNED IN A SUCCESSION OF IGNITIONS. DUE TO OVERPRESSURING A COMPRESSION COUPLING, CAUSED BY POOR GAS COMPANY RECORDS OF SCHOOL SERVICE LINE.

KR - KILLED (RANGE-SEARCHABLE): 1 IR - INJURED (RANGE-SEARCHABLE): 38

Record 48 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 11/09/1973

LO - LOCATION: TRINIDAD & TOBAGO; PORT OF SPAIN; SANTA FLORA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: WORKER EMPLOYED AT SANTANA DRILLING CO. CONTRACTED TO TRINIDAD TESORO PETROLEUM CO. KILLED WHEN SERVICING A WELL WHEN GAS BEGAN TO ESCAPE FROM IT. AS ATTEMPTS WERE MADE TO CONTROL GAS, A LIGHT BULB BURST AND IGNITED IT. KR - KILLED (RANGE-SEARCHABLE): 1

Record 49 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 09/07/1967

LO - LOCATION: INDONESIA; EAST SUMATRA; PAKAN BARU

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: AN OIL EXPLORATORY WELL OF AMERICAN STANVAC OIL CO. WAS BEING DESTROYED BY FIRE AFTER SEEPING GAS IGNITED. FIRE STILL BURNING 2 DAYS LATER. IR - INJURED (RANGE-SEARCHABLE): 4

Record 50 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 22/02/1984

LO - LOCATION: CANADA; NOVA SCOTIA; AT SEA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONTREL continuous-release

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: NAT. GAS LEAK FROM WELL OFF NOVA SCOTIA BROUGHT UNDER CONTROL.

Record 51 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/05/1984

LO - LOCATION: UK; LANCASHIRE; ABBEYSTEAD

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-

GC - GENERAL CAUSE: HUMAN human-factor; EXTERNAL external-events

SC - SPECIFIC CAUSE: DESIGN design-error; MANAGEMENT general-management-error; GROUND subsidence,-soil-stress,-erosion-of-support

AB - ABSTRACT: NW WATER AUTHORITY PUMPING STATION. QUANTITIES OF METHANE IN GROUND STRATA NOT EXPECTED, TUNNEL NOT FULL OF WATER AS SHOULD BE, VENTED TO PUMP HOUSE INSTEAD OF ATMOSPHERE. EXPLOSION WHILE VISIT BEING MADE BY LOCALS. NO PROSECUTIONS. HSE ENQUIRY.

KR - KILLED (RANGE-SEARCHABLE): 16

IR - INJURED (RANGE-SEARCHABLE): 28

Record 52 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/07/1979

LO - LOCATION: USA; OKLAHOMA; ENID

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: PROCESS process-; PIPEWORK pipework-

DG - DAMAGE (US DOLLARS): US\$ >1.00 x 10E6

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: ALLIED CHEMICAL CORP COMPRESSOR PUMP STATION. 3 COMPRESSOR UNITS, BUILDING AND PIPELINE HEAVILY DAMAGED. ONE OF COMPRESSOR DISCHARGE LINES RUPTURED + THE RELEASE WAS IGNITED. PLANT (1 MILES) WEST OF STATION EXTRACTS NATURAL GAS FROM CASINGHEAD GAS.

Record 53 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 12/11/1952

LO - LOCATION: USA; MINNESOTA; MINNEAPOLIS

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-; FIREDEQUIP fired-process-equipment

DG - DAMAGE (US DOLLARS): US\$ 0.25 x 10E6

GC - GENERAL CAUSE: INSTRUMENT instrument-failure; VREACTION violent-reaction

SC - SPECIFIC CAUSE: CONTROL controller; CONEXP confined-explosion

AB - ABSTRACT: GAS EXPLOSION IN HIGH - PRESSURE, GAS-FIRED STEAM BOILER DUE TO IMPROPER OR FAULTY OPERATION OF AUTOMATIC GAS SAFETY CONTROLS. ARCHER-DANIELS MIDLAND CO., NO DETAILS OF INJURIES.

Record 54 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 24/07/1979

LO - LOCATION: AUSTRALIA; NEW SOUTH WALES; APPIN

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: "AUSTRALIAN IRON + STEEL LTD" COLLIERY UNDERGROUND EXPLOSION. ELECTRICAL FAULT IGNITED METHANE GAS 650 YARDS UNDERGROUND, 1.9 MILES FROM PIT ENTRANCE. SECTIONS OF MINE COLLAPSED + RUBBLE + GASES HAMPERED RESCUE TEAMS. 50 KM SW OF SYDNEY.

KR - KILLED (RANGE-SEARCHABLE): 14 IR - INJURED (RANGE-SEARCHABLE): 2

Record 55 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 10/12/1976
- LO LOCATION: USA; LOUISIANA; BATON ROUGE
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-
- OG ORIGIN: PROCESS process-; PIPEWORK pipework-
- GC GENERAL CAUSE: HUMAN human-factor; VREACTION violent-reaction
- SC SPECIFIC CAUSE: MAINTAIN general-maintenance; CONEXP confined-explosion

AB - ABSTRACT: NATURAL GAS INADVERTENTLY ADMITTED TO CHLORINE INERT PURGE SYSTEM EXPLODED AT CHEMICAL WORKS. SHOCK WAVE DISLODGED CHLORINE TANK FROM SUPPORT ONTO PROTRUDING OBJECT. CONTENTS RELEASED OVER 6hr PERIOD. CLOUD DISPERSED OVER SPARSELY POPULATED REGION.

- KR KILLED (RANGE-SEARCHABLE): 0
- IR INJURED (RANGE-SEARCHABLE): 0

Record 56 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 11/03/1982

- LO LOCATION: NORWAY; TOR OIL PLATFORM
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: CONEXP confined-explosion
- OG ORIGIN: PROCESS process-; PIPEWORK pipework-
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: PROCEDURES procedural-failures

AB - ABSTRACT: GAS LEAKING FROM AN OIL + WATER DRAINAGE SYSTEM LED TO AN EXPLOSION ON PHILLIPS PETROLEUM TOR OIL PRODUCTION PLATFORM THE GAS WAS IGNITED BY MAINTENANCE WORKERS IGNORING A NO-SMOKING INSTRUCTION. 7 NORWEGIANS BURNED. FLOWN TO STAVANGER.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 7

Record 57 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 09/07/1979

LO - LOCATION: USA; LOUISIANA; PORT HUDSON

- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-; FIRE fire-
- OG ORIGIN: PROCESS process-

AB - ABSTRACT: 2 EXPLOSIONS + A FIRE AT AMOCO PRODUCTION CO RIG. 1ST EXPLOSION AS WORKERS INSERTED A DRILL BIT INTO WELL HOLE, 2ND 2 HOURS LATER. TOPPLING DERRICK RISKED STORAGE TANK NEARBY. BURN INJURIES.

- KR KILLED (RANGE-SEARCHABLE): 1
- IR INJURED (RANGE-SEARCHABLE): 3

Record 58 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 05/10/1974

LO - LOCATION: KUWAIT; MAGWA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: CONTREL continuous-release OG - ORIGIN: PROCESS process-AB - ABSTRACT: A POTENTIALLY DANGEROUS GAS LEAK WAS SUCCESSFULLY SEALED AFTER A LONG EMERGENCY OPERATION TO SMOTHER IT WITH MUD + WATER. NO FIRE + LEAK FINALLY PLUGGED BY ASBESTOS + CEMENT. INCIDENT OCCURRED IN KUWAIT OILFIELDS.

Record 59 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 09/06/1979

LO - LOCATION: USA; LOUISIANA; ATCHAFALAYA BAY

- MN MATERIAL NAME: METHANE
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-; FIRE fire-
- OG ORIGIN: PROCESS process-

AB - ABSTRACT: CARGILL INC SALT MINE ON AN ISOLATED MARSHY ISLAND NEAR ATCHAFALAYA

BAY. MINERS HIT A POCKET OF METHANE GAS. S. LOUISIANA.

- KR KILLED (RANGE-SEARCHABLE): 5
- IR INJURED (RANGE-SEARCHABLE): 17

Record 60 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 24/01/1979

LO - LOCATION: HUNGARY; ZSANA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONTREL continuous-release; TORCH torch-or-jet-fire

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: BLAZE AT GAS WELL 1825M BELOW GROUND IN VILLAGE. OVER 100 FIREMEN BUILT ARTIFICIAL LAKE NEAR BLAZE FOR 60M HIGH FLAMES, + USED AIRCRAFT ENGINES AS BLOWERS. BURN FOR 13 DAYS -CAPPED-REIGNITE FOR 2 DAYS-STILL LEAKING-WATER CANNON LEFT ON.

Record 61 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 16/05/1979

LO - LOCATION: JAPAN; OYUBARI

- MN MATERIAL NAME: METHANE
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: FIRE fire-
- OG ORIGIN: PROCESS process-
- GC GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: GROUND subsidence,-soil-stress,-erosion-of-support

AB - ABSTRACT: MITSUBISHI COAL MINING COMPANY, OYUBARI COAL MINE, 4000M IN. GASESCAPE CAUSED CAVE IN (KILLED 6). 4 HOURS LATER RESCUE TEAM IN + GAS FLASHED KILLING 10 RESCUERS.

KR - KILLED (RANGE-SEARCHABLE): 16

IR - INJURED (RANGE-SEARCHABLE): 14

Record 62 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 27/01/1972

LO - LOCATION: CANADA; MONTREAL

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-; CONEXP confined-explosion

OG - ORIGIN: PROCESS process-

DG - DAMAGE (US DOLLARS): US\$ 0.10 x 10E6

GC - GENERAL CAUSE: HUMAN human-factor; HUMAN human-factor

SC - SPECIFIC CAUSE: PROCEDURES procedural-failures

AB - ABSTRACT: MANUAL ISOLATION VALVES ON NITROGEN SUPPLY TO COMPRESSOR ON LNG PEAK SHAVING PLANT LEFT OPEN. GAS ENTERED N2 SYSTEM + HENCE CONTROL ROOM, WHERE IT IGNITED. EXPLOSION BEHIND PANELS. CITY LOST GAS SUPPLY FOR SOME TIME. SMOKING ALLOWED IN LOCKER ROOM. IR - INJURED (RANGE-SEARCHABLE): 5

Record 63 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 24/05/1974
- LO LOCATION: BAHRAIN; KHUFF
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: RELEASE release-
- OG ORIGIN: PROCESS process-
- GC GENERAL CAUSE: HUMAN human-factor
- SC SPECIFIC CAUSE: GENERALOP general-operational

AB - ABSTRACT: MILLIONS OF CUBIC FEET OF GAS ESCAPED AT 5TH RIG DRILLED IN GASFIELD, THE WELL WENT OUT OF CONTROL WHEN IT HIT GAS AT 10000ft. 2 ATTEMPTS TO PLUG WELL FAILED BUT THIRD ATTEMPT SUCCEEDED, PRECAUTIONS TAKEN TO AVOID IGNITION, WELL ABANDONED.

Record 64 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 06/12/1976
- LO LOCATION: USA; GULF OF MEXICO
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: CONTREL continuous-release
- OG ORIGIN: PROCESS process-

AB - ABSTRACT: OIL RIG ABANDONED AND UNBURNT LAT 27 51 18N, LONG 94 23 35W. WRECK NOT MANNED OR LIT.

- NOT MANNED OR LIT.
- KR KILLED (RANGE-SEARCHABLE): 0
- IR INJURED (RANGE-SEARCHABLE): 0

Record 65 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 11/06/1976
- LO LOCATION: USA; LOUISIANA; PARADIS
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-; FIRE fire-
- OG ORIGIN: PROCESS process-; PUMP pumps,-compressors
- GC GENERAL CAUSE: MECHANICAL mechanical-failure
- SC SPECIFIC CAUSE: FATIGUE material-fatigue

AB - ABSTRACT: FIRE IN TEXACO 10acre NATURAL GAS PLANT CONFINED TO CENTRAL AREA BY FIREFIGHTERS FROM 30mile RADIUS & BROUGHT UNDER CONTROL IN 4hrs. BUTANE & PROPANE TANKS COOLED TO PREVENT BLEVE AS FLAMES REACHED 15ft IN AIR. TOUCHED OFF BY COMPRESSOR BLOW OUT.

- KR KILLED (RANGE-SEARCHABLE): 0
- IR INJURED (RANGE-SEARCHABLE): 0

Record 66 of 69 - OSH-ROM: MHIDAS complete to 2007/05

- DA DATE OF INCIDENT: 25/08/1976
- LO LOCATION: CANADA; BRITISH COLUMBIA; FORT ST JOHN
- MN MATERIAL NAME: NATURAL GAS
- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: CONTREL continuous-release; TORCH torch-or-jet-fire
- OG ORIGIN: PROCESS process-
- DG DAMAGE (US DOLLARS): US\$ >1.00 x 10E6

AB - ABSTRACT: GAS WELL FIRE FOR 4 DAYS 10 MILLIONft3/day BURNT. DRILLED BY HIGH TOWER DRILLING, FOR "NORCEN ENERGY RESOURCES" OF CALGARY. WATER SPRAYED THEN WELL

CAPPED BY JIM ADAIR AND PAUL SAULNIER. FIRE BEGAN WHILE TRUCKS WERE REMOVING EQUIPMENT FROM SITE.

Record 67 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/1974

LO - LOCATION: USA; TEXAS; GALVESTON BAY

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONTREL continuous-release; FIRE fire-

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: REPORT IN FEB EDITION OF OFFSHORE PUBLICATION FROM TULSA OKLAHOMA, HOUSTON OIL AND MINERALS CORP. PUT OUT FIRE AT FRIO STATE UNIT. NO. 2. WELL BURNT FOR 204 DAYS. 1500 BARRELS OF MUD PUMPED INTO RELIEF WELL TO EXTINGUISH FIRE.

Record 68 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 18/07/1976 LO - LOCATION: TRINIDAD & TOBAGO; GALEOTA POINT MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-OG - ORIGIN: PROCESS process-; PVESSEL process-vessels AB - ABSTRACT: SEPARATOR TANK EXPLODED AT "AMOCO TRINIDAD" PLANT CAUSING NATURAL GAS FIRE.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 12

Record 69 of 69 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/11/1976

LO - LOCATION: GULF OF MEXICO

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONTREL continuous-release

OG - ORIGIN: PROCESS process-

AB - ABSTRACT: BLOW OUT OF PENNZOIL WELL SINKING RIG. CREW EVACUATED(RETURNED1/9/11)ALSO BLOW OUT ON SHELLY OIL, WELL 18/11. GAS 100ft INTO AIR. KR - KILLED (RANGE-SEARCHABLE): 0

IN ILLED (RANGE-SEARGHADLE). U

IR - INJURED (RANGE-SEARCHABLE): 0

Di seguito viene riportato l'elenco degli incidenti coinvolgenti gas naturale o metano avvenuti in aree di stoccaggio estratti dalla Banca Dati MHIDAS:

Record 1 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 26/10/2005 LO - LOCATION: USA; CALIFORNIA; VICTORVILLE MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: FIRE fire-OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels GC - GENERAL CAUSE: EXTERNAL external-events; MECHANICAL mechanical-failure SC - SPECIFIC CAUSE: EXTNLFIRE fire AB - ABSTRACT: A COMPRESSOR SITUATED ON TOP OF STORAGE TANKS WITH COMPRESSED NATURAL GAS CAUGHT FIRE AND THREATENED TO CAUSE AN EXPLOSION IN THE NATURAL GAS STORAGE TANK. FIREFIGHTERS COOLED DOWN THE TANK WITH WATER TO KEEP TEMPERATURES DOWN.

Record 2 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/12/2004 LO - LOCATION: USA; ALASKA; KENAI MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: FIRE fire-OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure AB - ABSTRACT: FIRE BROKE OUT AT A GAS PRODUCTION FACILITY DESTROYING TWO 12600gall TANKS AND OTHER EQUIPMENT AT A NATURAL GAS PRODUCTION PAD. WATER HAD TO BE TRUCKED TO THE SITE TO EXTINGUISH THE FIRE. COMPANY CREWS WERE WORKING TO PREVENT GAS RELEASE.

Record 3 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 25/08/2004

LO - LOCATION: CANADA; REGINA

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: TANKFIRE tank-fire

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: LIGHTNING lightning

AB - ABSTRACT: A GAS STORAGE TĂNK CĂUGHT FIRE AFTER IT WAS STRUCK BY LIGHTNING. THE 40m WIDE BY 15m HIGH GAS TANK WAS ABOUT 80% FULL AT THE TIME. THE FIRE WAS NOTICED AND DEALT WITH BY THE FIRECREWS FROM THE REFINERY WITHIN ONE AND A HALF HOURS.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 4 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 19/08/2004

LO - LOCATION: USA; TEXAS; MOSS BLUFF

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; PIPEWORK pipework-

AB - ABSTRACT: EXPLOSION & FIRE IN HUGE UNDERGROUND SALT DOME STORAGE AREA, WITH MAN MADE CAVERNS CARVED INTO DOMES, MAY HAVE BURNED 6 million ft3 NATURAL GAS. FIRE GREW IN SIZE & THERE WAS 2nd EXPLOSION. FIRE BURNED ITSELF OUT A WEEK LATER. WELL CONTROL INCIDENT.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 5 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 04/08/2004

LO - LOCATION: RUSSIA; YAKUTSK; KJHATYNG YURYAH

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-

AB - ABSTRACT: ONE PERSON KILLED & FIREFIGHTER SERIOUSLY INJURED IN INCIDENT WHERE GAS LEAK WAS SUSPECTED TO HAVE IGNITED & CAUSED EXPLOSION & FIRE AT GAS DISTRIBITION CENTRE. 1st EXPLOSION WAS FOLLOWED BY 2nd 1.5hrs LATER. GAS SUPPLIES TO A POWER PLANT WERE REDUCED. KR - KILLED (RANGE-SEARCHABLE): 1

IR - INJURED (RANGE-SEARCHABLE): 1

Record 6 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/04/2004

LO - LOCATION: GERMANY; BERLIN; SPANDAU

MN - MATERIAL NAME: NATURAL GAS

- MC MATERIAL CODE: 1971
- IT INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: STORAGE storage-

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: EXPLOSION OCCURRED DURING MAINTENANCE ON GAUGES AT CAVERN GAS STORAGE FACILITY.

IR - INJURED (RANGE-SEARCHABLE): 3

Record 7 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 25/10/2002

LO - LOCATION: USA; NEW MEXICO; LOVINGTON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: VALVE ON THE TOP OF TANK WAS BEING REPLACED. NEARBY HEATER IS BELIEVED TO HAVE IGNITED THE ESCAPING GAS, CAUSING AN EXPLOSION. THE MAN REPLACING THE VALVE WAS KILLED IN THE EXPLOSION.

KR - KILLED (RANGE-SEARCHABLE): 1

Record 8 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 02/04/2002

LO - LOCATION: AUSTRALIA; QUEENSLAND; BRISBANE

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONTREL continuous-release

OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

AB - ABSTRACT: GAS STARTED LEAKING FROM GASOMETER AFTER TANK TOP TILTED. SITUATION WORSENED AS GAS WAS STILL BEING PUMPED INTO TANK. 2KM SAFETY ZONE IMPOSED.

Record 9 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 06/02/1997

LO - LOCATION: UK; NORTHAMPTONSHIRE; NORTHAMPTON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: RELEASE release-; GASCLD gas-cloud OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels AB - ABSTRACT: RELEASE OF NATURAL GAS FROM GAS HOLDER. GAS STORED AT VERY LOW PRESSURE & FRESH WIND WOULD HAVE DISPERSED IT VERY QUICKLY. HUNDREDS OF HOUSEHOLDERS TELEPHONED BRITISH GAS.

Record 10 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 31/07/1996

LO - LOCATION: CANADA; VAUGHAN

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: LIGHTNING lightning

AB - ABSTRACT: LIGHTNING STRUCK A NATURAL GAS TANK. THIS WAS SUSPECED AS CAUSE OF MASSIVE EXPLOSION WHICH SET FOUR HOUSES ABLAZE & INJURED SEVERAL PEOPLE - 1 WOMAN WAS THROWN OUT OF WINDOW & ANOTHER TRAPPED UNDER REFRIGERATOR. IR - INJURED (RANGE-SEARCHABLE): 2

Record 11 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/03/1996

LO - LOCATION: INDIA; UTTAR PRADESH

MN - MATERIAL NAME: METHANE

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: TANK OF METHANE GAS EXPLODED AT EFFLUENT TREATMENT PLANT WHILE WELDING WORK WAS BEING COMPLETED ON TANK'S ROOF. THREE WORKERS KILLED & 1 SERIOUSLY INJURED. WORKERS WERE TRYING TO PREVENT GAS LEAKS UPON ORDERS OF STATE POLLUTION CONTROL OFFICERS.

KR - KILLED (RANGE-SEARCHABLE): 3

IR - INJURED (RANGE-SEARCHABLE): 1

Record 12 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/11/1995

LO - LOCATION: RUSSIA; YEKATERINBURG

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels

GC - GENERAL CAUSE: MECHANICAL mechanical-failure

SC - SPECIFIC CAUSE: CORRODE corrosion

AB - ABSTRACT: FIRE BROKE OUT AS RESULT OF EXPLOSION AT GASOMETER. EXPLOSION OCCURRED WHEN GAS PRESSURE BUILT UP TO 30 ATMOSPHERES WHEN VALVES AT STATION WERE SHUT OFF. SABOTAGE SUSPECTED, LATER STATED AS CORRODED PIPES NOT REPLACED FOR 10 YEARS.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 13 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 01/10/1993 LO - LOCATION: USA; CALIFORNIA; STOCKTON MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosionOG - ORIGIN: STORAGE storage-

DG - DAMAGE (US DOLLARS): US\$ 2.05 x 10E6

AB - ABSTRACT: NATURAL GAS EXPLOSION AT UNDERGROUND STORAGE SITE CAUSED \$2m DAMAGE AND \$50,000 3rd PARTY DAMAGE AT STORAGE PLANT. NO INJURIES. IR - INJURED (RANGE-SEARCHABLE): 0

Record 14 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 10/06/1993

LO - LOCATION: UK; TYNE & WEAR; GATESHEAD

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels

GC - GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: SABOTAGE sabotage-or-vandalism

AB - ABSTRACT: TERRORIST BOMB SUSPECTED OF BLOWING HOLE IN NATURAL GAS STORAGE TANK.

Record 15 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 09/06/1993

LO - LOCATION: UK; TYNE & WEAR; GATESHEAD

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: SABOTAGE sabotage-or-vandalism

AB - ABSTRACT: TERRORIST BOMB SUSPECTED OF BLOWING HOLE IN 2.5m cu ft LOW PRESSURE NATURAL GAS TANK. HUNDREDS OF PEOPLE WERE EVACUATED FROM NEARBY HOMES, BUT NO ONE INJURED AT UNMANNED SITE. TWO NEIGHBOURING TANKS DID NOT RUPTURE. IR - INJURED (RANGE-SEARCHABLE): 0

Record 16 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 16/03/1993

LO - LOCATION: USA; TEXAS; MERTZON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

AB - ABSTRACT: FIRE IN 500bbi STORAGE TANK AT NATURAL GAS PROCESSING PLANT. MINOR

DAMAGE WAS SUSTAINED AND PLANT WAS SHUTDOWN NEXT DAY.

IR - INJURED (RANGE-SEARCHABLE): 0

Record 17 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 26/02/1993

LO - LOCATION: UK; CHESHIRE; WARRINGTON

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: EXTERNAL external-events

SC - SPECIFIC CAUSE: SABOTAGE sabotage-or-vandalism

AB - ABSTRACT: BOMB EXPLOSION DESTROYED GAS STORAGE TANK. NO ONE WAS HURT BUT 250 NEARBY FAMILIES WERE EVACUATED FROM THEIR HOMES.

Record 18 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 18/12/1992

LO - LOCATION: CANADA; MONTANA; BILLINGS

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-

OG - ORIGIN: WAREHOUSE warehouse-

GC - GENERAL CAUSE: IMPACT impact-failure

AB - ABSTRACT: AIRCRAFT CRASHED RUPTURING GAS MAIN. INTENSE 5hr FIRE IN WAREHOUSE CONTAINING PRINTING SUPPLIES, PAPER & 12 VANS. ALL 7 ON PLANE KILLED.

KR - KILLED (RANGE-SEARCHABLE): 7

Record 19 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 08/08/1992 LO - LOCATION: TURKEY; CORLU MN - MATERIAL NAME: METHANE MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure AB - ABSTRACT: EXPLOSION IN 1000m3 STORAGE TANK UNDER FACTORY CANTEEN. SUSPECTED METHANE BEING PUMPED IN WITH WATER. 32 KILLED DUE TO BLAST & DROWNING. 64 INJURED. KR - KILLED (RANGE-SEARCHABLE): 32 IR - INJURED (RANGE-SEARCHABLE): 64

Record 20 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 08/04/1992

LO - LOCATION: USA; TEXAS; BRENHAM

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: STORAGE storage-

AB - ABSTRACT: LPG CLOUD EXPLOSION NEAR LPG SALT STORAGE CAVERN ALSO INVOLVED NEARBY GAS PIPELINES WHERE GAS IS PUMPED TO SALT DOME FOR STORAGE. CATTLE KILLED & CARS THROWN OFF ROAD. BLAST FELT 100m AWAY. GAS ACCUMULATED IN DEPRESSION IGNITED BY UNKNOWN DEVICE. KR - KILLED (RANGE-SEARCHABLE): 1

IR - INJURED (RANGE-SEARCHABLE): 20

Record 21 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 10/03/1976

LO - LOCATION: EQUADOR; GUAYAQUIL

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

DG - DAMAGE (US DOLLARS): US\$ >0.10 x 10E6

AB - ABSTRACT: A SHORT CIRCUIT ON A TANKER UNLOADING GAS AT A JETTY SPARKED OFF A SERIES OF EXPLOSIONS. THE JETTY & 5 HUGH NATURAL GAS TANKS WERE INVOLVED. FIERCE FIRES TOOK 5hrs TO CONTROL. AT LEAST 50 PEOPLE WERE INJURED BY THE BLAST & 2 FIRE ENGINES WERE DESTROYED

IR - INJURED (RANGE-SEARCHABLE): 51

Record 22 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 10/02/1973

LO - LOCATION: USA; NEW YORK; STATEN ISLAND

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: CONEXP confined-explosion; FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

DG - DAMAGE (US DOLLARS): US\$ 14.00 x 10E6

GC - GENERAL CAUSE: HUMAN human-factor

SC - SPECIFIC CAUSE: MAINTAIN general-maintenance

AB - ABSTRACT: INTERNAL EXPLOSION LIFTED STEEL ROOF OFF AN LNG STORAGE TANK EMPTY AND UNDER REPAIR. 40 MEN WORKING ON THE BOTTOM WERE KILLED WHEN ROOF CRASHED DOWN, 2 WORKERS ON SCAFFOLDING SURVIVED. CAUSE OF EXPLOSION IN CONCRETE TANK NOT ESTABLISHED.

KR - KILLED (RANGE-SEARCHABLE): 40

IR - INJURED (RANGE-SEARCHABLE): 2

Record 23 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 30/08/1980

LO - LOCATION: GERMANY; FRANKETHAL

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: GASCLD gas-cloud; CONTREL continuous-release

OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels

DG - DAMAGE (US DOLLARS): US\$ 3.00 x 10E6

GC - GENERAL CAUSE: HUMAN human-factor; MECHANICAL mechanical-failure

SC - SPECIFIC CAUSE: CONSTRUCT construction-error; EXCAVEQUIP excavating-equipment

AB - ABSTRACT: 16million m3 NATURAL GAS ESCAPED FROM UNDERGROUND STORAGE OVER 2 MONTH PERIOD FOLLOWING PUNCTURE DURING DRILLING OPERATIONS. STORAGE 680m UNDERGROUND, PRESSURE=70bar.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 0

Record 24 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 21/09/1960

LO - LOCATION: USA; CALIFORNIA; BAKERSFIELD

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: RELEASE release-; VAPFIRE vapour-or-flash-fire

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

GC - GENERAL CAUSE: MECHANICAL mechanical-failure; HUMAN human-factor

SC - SPECIFIC CAUSE: OVERPRES overpressure; GENERALOP general-operational; OVERFILL overfilling

AB - ABSTRACT: NATURAL GAS BLANKETED CAUSTIC STORAGE RUPTURED BY PROPANE INGRESS. GAS IGNITED WHEN MISSILE HIT ELECTRIC PANEL. DEBRIS BROKE VALVE ON BUTANE STORAGE 30m AWAY. LIQUID FLOWED UNDER 4*38m3 BUTANE BULLETS. BLEVE PREVENTED BY SPRINKLER SYSTEM & PROMPT ACTION.

Record 25 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 24/08/1968

LO - LOCATION: NORWAY; RJUKAN

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; ASVESSEL storage-vessels,-atmospheric-pressure

AB - ABSTRACT: EYEWITNESS REPORTS SAY FLAMES REACHED >200M HIGH. IN THE TOWN SHOP + CAR WINDOWS WERE BROKEN. GAS HOLDER WAS AT SAHEIM I, RJUKAN SALTPETRE FACTORIES, NORSK HYDRO.

KR - KILLED (RANGE-SEARCHABLE): 0

IR - INJURED (RANGE-SEARCHABLE): 0

Record 26 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 23/11/1970

LO - LOCATION: WEST INDIES; ST.THOMAS ISLAND; CHARLOTTE AMALIE

MN - MATERIAL NAME: NATURAL GAS
MC - MATERIAL CODE: 1971
IT - INCIDENT TYPE: RELEASE release-; CONEXP confined-explosion
OG - ORIGIN: STORAGE storageAB - ABSTRACT: AN EXPLOSION AT THE STORAGE PLANT OF CARIB. GAS CO. VIRTUALLY
ROCKED THE WHOLE ISLAND. THE RESULT WAS LOSS OF ELECTRICITY ON ISLAND. NO DEATHS
REPORTED.
KR - KILLED (RANGE-SEARCHABLE): 0
IR - INJURED (RANGE-SEARCHABLE): 25

Record 27 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 29/10/1976 LO - LOCATION: URUGUAY; MONTEVIDEO MN - MATERIAL NAME: NATURAL GAS MC - MATERIAL CODE: 1971 IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-OG - ORIGIN: STORAGE storage-; MACDRIVE process-machinery-drives AB - ABSTRACT: EXPLOSION IN CITY GAS STORAGE AREA IN ENGINE ROOM ADJACENT TO STORAGE TANK FOLLOWED BY FIRE WHICH CONSUMED 600000m3. GAS CONTROLLED AFTER 3hours AVERTING DANGER OF EXPLOSION OF STORAGE TANKS KR - KILLED (RANGE-SEARCHABLE): 0 IR - INJURED (RANGE-SEARCHABLE): 14

Record 28 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 08/11/1976

LO - LOCATION: USA; KANSAS; KANSAS CITY

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: EXPLODE explosion-; FIRE fire-

OG - ORIGIN: STORAGE storage-; PSVESSEL pressurised-storage-vessels

AB - ABSTRACT: EXPLOSION AT PHILLIPS PETROLEUM CO REFINERY FELT OVER MOST OF METROPOLITAN AREA. FLAMES SEEN 15miles AWAY DURATION 0015-0600.

Record 29 of 29 - OSH-ROM: MHIDAS complete to 2007/05

DA - DATE OF INCIDENT: 1980

LO - LOCATION: USA; TEXAS; MONT BELVIEU

MN - MATERIAL NAME: NATURAL GAS

MC - MATERIAL CODE: 1971

IT - INCIDENT TYPE: FIRE fire-; CONTREL continuous-release

OG - ORIGIN: STORAGE storage-

DG - DAMAGE (US DOLLARS): US\$ >8.00 x 10E6

SC - SPECIFIC CAUSE: EXCAVEQUIP excavating-equipment

AB - ABSTRACT: GAS LEAK FROM UNDERGROUND CAVERN STORAGE OWNED BY WARREN

PETROLEUM COMPANY. HOLE THOUGHT TO HAVE BEEN PRODUCED BY DRILLING OPERATIONS.