

**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:

<b>Area di origine</b>	<b>N° incidenti</b>
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:

<b>Unità</b>	<b>N° incidenti</b>
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

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

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

<b>Causa</b>	<b>N° incidenti</b>
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:

<b>Unità</b>	<b>N° incidenti</b>
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

<b>Tipologia di evento</b>	<b>N° incidenti</b>
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:

<b>Causa</b>	<b>N° incidenti</b>
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-SEARCHABLE): 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 explosion-  
OG - ORIGIN: PROCESS process-  
AB - 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 process-

AB - 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 SUGGESTED.

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; ABBEYSTED  
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.  
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  
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 TANK CAUGHT 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 DISTRIBUTION 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 WORSENER 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 explosion-

OG - 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 500bbl 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 storage-  
AB - 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.