BACKGROUND

In the City of Mesa, anyone storing, handling, and/or using any amount of hazardous material(s), is/are required to complete a "Hazardous Materials Inventory Statement" (HMIS) and a "Hazardous Materials Management Plan" (HMMP). Based on the amount and type of hazardous material(s), either a short or long form must be provided.

As a minimum reporting criteria for hazardous materials, the amounts are as follows:

- More than 10 gallons aggregate of Class 1-2 flammables.
- More than 10 gallons aggregate of organic peroxides.
- More than 100 pounds or 50 gallons of oxidizers.
- More than 100 pounds or 50 gallons of corrosives.
- Any amount of highly toxic materials.
- Any amount of explosives.
- Any hazardous material used in process (spray painting, dipping, coating, or injected through piping, tubing, etc.)
- More than 50 pounds of flammable solids.
- Any amount of flammable gas.
- Radioactive materials in amounts over one microcurie.
- Any amount of pyrophorics.
- Any amount of unstable or water reactives.

Classifications of materials not listed above can be considered a minimal hazard when falling below the reportable amounts for the HMMP Short Form; otherwise they will be addressed under "Maximum Allowable Quantities" in Chapter 27 of the 2003 Mesa Fire Code.

The inventory statement and plan are required by the Fire Code Official pursuant to the City of Mesa Fire Code (2003 International Fire Code, Chapter 27 as amended), and shall be provided when requested by the City of Mesa.

The City of Mesa Building and Fire Departments shall protect proprietary and trade secret information.

PROCEDURE FOR BUSINESSES

- For a new business or construction changes, contact the Building Department at 480 644.4273.
- For an existing business, contact Fire Prevention at 480 644-2622.
- Obtain appropriate form(s) based on the quantity of hazardous materials (see below).
- Return completed HMMP forms/disc to the appropriate department for review.
- After review, make necessary corrections and submit final copy/copies. Updates are to be provided to Fire Prevention on a yearly basis, or within 30 days of a change.

HMMP Short Form

Minimal Storage Site – A facility shall qualify as a minimal storage site if the quantity of hazardous materials for the facility is:

1. 500 pounds or less for solid materials,
2. 55 gallons or less for liquid materials,
3. 200 cubic feet or less at normal temperature and pressure for gases.

See the City of Mesa Hazardous Materials Plan.

HMMP Long Form

Exceeds minimum storage - An HMMP Long Form is required when applying for a hazardous materials permit whenever:

1. A facility is designated as a Group H, Division 5 semiconductor manufacturer;
2. A building or site has multiple Group H occupancy designations;
3. Hazardous materials storage is in excess of maximum allowable quantities specified in Mesa Fire Code (MFC) Tables 2703.1.1 (1-4) and aerosol products as in Chapter 28;

4. Hazardous materials storage, dispensing, use, and handling exceeds maximum allowable quantities listed in MFC Tables 2703.1.1 (1-4) and aerosol products as in Chapter 28 or,

5. When otherwise determined because of unique circumstances.

Large retail businesses that stock hazardous materials in excess of maximum allowable quantities, may be classified as those facilities not engaged in "use" and need only submit the HMIS and HMMP Short Form (see below). If they are engaged in "use" and over the maximum allowable quantities of hazardous materials as specified below, they must submit an HMMP Long Form. "Use," as defined by the MFC is, in general:

1. Placing a material (including solids, liquids, and gases) into action.

2. "Handling" is defined as the deliberate transport by any means to a point of storage or use.

See City of Mesa Hazardous Materials Management Plan - Long Form.

MAINTENANCE OF RECORDS

Hazardous materials inventory statements and hazardous materials management plans shall be maintained by the person/business requesting the permit for a period of not less than three years after submittal of updated or revised versions. Such records shall be made available to the Fire Code Official upon request.

HAZARDOUS MATERIALS DEFINED

The following definitions from the 2003 International Fire Code with City of Mesa amendments are listed in alphabetical order to assist in determining if a business has hazardous materials:

Acute
Adverse effect on a human or animal body that takes place soon after exposure resulting from a single dose or exposure to a substance.

Blasting Agent
A material or mixture consisting of a fuel and oxidizer intended for blasting. The finished product as mixed and packaged for use or shipment cannot be detonated by means of a No. 8 test-blasting cap when unconfined. Under Department of Transportation regulations, blasting agents are classified and labeled as 1.5.

Chronic
Adverse effect on a human or animal body with symptoms that develop slowly over a long period of time or that recur frequently resulting from long term contact with a substance.

Combustible Liquid
A liquid having a flash point at or above 100ºF (37.8ºC). The category of combustible liquids does not include compressed gases or cryogenic fluids. Combustible liquids are subdivided as follows:

- **Class II** liquids are those having closed cap flash points at or above 100ºF (37.8ºC) and below 140ºF (60ºC).
- **Class III-A** liquids are those having closed cap flash points at or above 140ºF (60ºC) and below 200ºF (93.3ºC)
- **Class III-B** liquids are those liquids having closed cap flash points at or above 200ºF (93.3ºC).

Compressed Gas
A material, or mixture of materials, which:

1. Is a gas at 68ºF (20ºC) or less at 14.7 psia (101.3kPa) of pressure, and
2. Has a boiling point of 68ºF (20ºC) or less at 14.7 psia (101.3kPa) which is either liquefied, non-liquefied or in solution; except those gases which have no other health or physical hazard properties and are not considered to be compressed until the pressure in the packaging exceeds 41 psia (282.5 kPa) at 68ºF (20ºC).

The states of a compressed gas are categorized as follows:

1. Non-liquefied compressed gases are gases, other than those in solution, which are in a packaging under the charged pressure and are entirely gaseous at a temperature of 68ºF (20ºC).
2. Liquefied compressed gases are gases that in a packaging under the charged pressure are partially liquid at a temperature of 68ºF. (20ºC).
3. Compressed gases in solution are non-liquefied gases that are dissolved in a solvent.

4. Compressed gas mixtures consist of a mixture of two or more compressed gases contained in a packaging, with hazard properties that are represented by the properties of the mixture as a whole.

Corrosive
A chemical that causes visible destruction of, or irreversible alterations in living tissue by chemical action at the site of contact. A chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits, by the method described in Appendix A to C.F.R. 49, Part 173, it destroys or changes irreversibly, the structure of the tissue at the site of contact following an exposure period of four hours. This term does not refer to action on inanimate surfaces.

Corrosive Liquid
A liquid that when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action. Examples include acidic, alkaline, or caustic materials.

Cryogenic Fluid
A fluid that has a normal boiling point below -150ºF (-101.1ºC).

Detonating Cord
A flexible cord containing a center core of high explosives used to initiate other explosives.

Detonator
A device containing any initiating or primary explosive that is used for initiating detonation. See MFC Chapter 33 for details.

Dust (Combustible)
Is finely divided solid material that is 420 microns or less in diameter and that when dispersed in the air in proper proportions, could be ignited by a flame, spark, or other source of ignition. Combustible dust will pass through a U.S. No. 40 standard sieve.

Electric Blasting Cap
Is a detonator that consists of a shell closed at one end; the other end contains electric wires that have been sealed into the shell. It contains a charge of detonating compound, which is ignited or initiated by applying electric current to the wires protruding from the detonator.

Explosive Materials
Are explosives, blasting agents and detonators including but not limited to; dynamite and other high explosives; slurries; emulsions and water gels; black powder and pellet powder; initiating explosives; detonators and blasting caps; safety fuses; squibs; detonating cord; igniter cord; igniters and fireworks, 1.3G.

Flammable Gas
Any material which is a gas at 68ºF (20ºC) or less at 14.7 psia (101.3 kPa) of pressure [a material has a boiling point of 68ºF (20ºC) or less at 14.7 psia (101.3 kPa)] which:

1. Is ignitable at 14.7 psia (101.3 kPa) when in a mixture of 13% or less by volume with air, or

2. Has a flammable range at 14.7 psia (101.3 kPa) with air of at least 12%, regardless of the lower limit.

Flammable Liquid
A liquid having a closed cap flash point below 100ºF (37.8ºC). The category of flammable liquids does not include compressed gases or cryogenic fluids. Flammable liquids are further categorized into a group known as Class I liquids. The Class I category is subdivided as follows:

- **Class I-A** liquids include those having a flash point below 73ºF (22.8ºC) and having a boiling point below 100ºF (37.8ºC).

- **Class I-B** liquids include those having a flash point below 73ºF (22.8ºC) and having a boiling point at or above 100ºF (37.8ºC).

- **Class I-C** liquids include those having a flash point at or above 73ºF (22.8ºC) and below 100ºF (37.8ºC).

Flammable Solid
A solid substance, other than one, which is defined as a blasting agent or explosive. It is liable to cause fire through friction absorption or moisture, spontaneous chemical change, or as a result of retained heat from manufacture, which has an ignition temperature below 212ºF (100ºC), or which burns so vigorously or persistently when ignited, that it creates a serious hazard.

Hazardous Materials
Those chemicals or substances that are physical hazards or health hazards as defined and classified in the MFC whether the materials are in usable or waste condition.

Health Hazard
A classification of a chemical for which there is statistically significant evidence that acute or chronic health effects could occur in exposed persons. Health hazards include chemicals that are toxic or highly toxic,, and corrosives.

Highly Toxic Material
A material, which produces a lethal dose or lethal concentration. . See MFC Chapter 37 for specific criteria.

IDLH (Immediately Dangerous to Life and Health)

The concentration of airborne contaminants that poses a threat of death, immediate or delayed permanent adverse health effects, or effects that could prevent escape from such environments. If adequate data does not exist for precise establishments of IDLH concentration, an independent certified industrial hygienist, industrial toxicologist, appropriate regulatory agency or other source approved by the Fire Code Official, shall make such determination.

Liquefied Petroleum Gas (LP-Gas)
A material composed predominantly of the following hydrocarbons or mixtures of them; propane, propylene, butane (normal butane or isobutene), and butylenes.

Mixture
Heterogeneous association of materials that cannot be represented by a chemical formula and that does not undergo chemical change as a result of interaction among the mixed chemicals. Mixtures shall be classified in accordance with hazards of the mixture as a whole. Mixtures of hazardous materials shall be classified in accordance with nationally recognized reference standards by an approved qualified organization, individual, or Material Safety Data Sheet (MSDS), or by other approved methods.

Material Safety Data Sheet (MSDS)
Information concerning a hazardous material that is prepared in accordance with the provisions of 29 C.F.R. 1910.1200.

Organic Peroxide
Is an organic compound that contains the bivalent -0-0- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms have been replaced by an organic radical. Organic peroxides can present an explosion hazard (detonation or deflagration) or they can be shock sensitive. Organic peroxides will decompose over time at a rate that increases with rising temperature. They can also decompose into various

unstable compounds over an extended period of time. Organic peroxides are subdivided into the following classes:

- **Class I:** Class I organic peroxides are capable of deflagration, but not detonation.
- **Class II:** Class II organic peroxides burn very rapidly and present a moderate reactivity hazard.
- **Class III:** Class III organic peroxides bum rapidly and present a moderate reactivity hazard.
- **Class IV:** Class IV organic peroxides bum in the same manner as ordinary combustible materials and present a minimal reactivity hazard.
- **Class V:** Class V organic peroxides burn with less intensity than ordinary combustible materials or do not sustain combustion and do not present a reactivity hazard.

Unclassified Detonable
Detonable organic peroxides are capable of detonation. These organic peroxides present an extremely high explosion hazard through rapid explosive decomposition and are regulated as explosives.

Oxidizer
A material other than a blasting agent or explosive, that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials. Examples of other oxidizing gases include bromine, chlorine, and fluorine. Oxidizer liquids and solids are subdivided as follows:

- **Class 4:** An oxidizer that can undergo an explosive reaction due to contamination or exposure to thermal or physical shock. In addition, the oxidizer will enhance the burning rate and may cause spontaneous ignition of combustible materials.
- **Class 3:** An oxidizer that will cause a severe increase in the burning rate of combustible materials with which it comes in contact, or that will undergo vigorous self-sustained decomposition, due to contamination or exposure to heat.
- **Class 2:** An oxidizer that will cause a moderate increase in the burning rate, or that causes spontaneous ignition of combustible materials with which it comes in contact.

- **Class 1:** An oxidizer whose primary hazard is that it slightly increases the burning rate but does not cause spontaneous ignition when it comes in contact with combustible materials.

Permissible Exposure Limit (PEL)
The maximum permitted eight-hour time-weighted average concentration of an airborne contaminant. The maximum permitted time-weighted average exposures to be utilized are those published in 29 C.F.R. 1910.1000.

Pesticide
A substance or mixture of substances, including fungicides, intended for preventing destroying, repelling, or mitigating pests and substances, or a mixture of substances intended for use as a plant regulator, defoliant or desiccant. Products defined as drugs in the Federal Food, Drug and Cosmetic Act are not pesticides.

Physical Hazard
A classification of a chemical for which there is scientifically valid evidence that it is a combustible liquid, compressed gas, cryogenic, explosive, flammable gas, flammable liquid, flammable solid, organic peroxide, oxidizer, pyrophoric, unstable reactive, or water-reactive material.

Pyrophoric
A chemical that has an auto-ignition temperature in air that is at or below 130ºF (54.5ºC).

Reactive Material
A material that can enter into a hazardous chemical reaction with other stable or unstable materials.

Special Industrial Explosive Device
Is an explosive power pack containing an explosive charge in the form of a cartridge or construction device. The term includes, but is not limited to; explosive rivets, explosive bolts, explosive charges for driving pins or studs, cartridges for explosive actuated power tools, and charges of explosives used in automotive air bag inflators, jet tapping of open hearth fur aces and jet perforation of oil well casings.

Toxic Material
A material that produces a lethal dose or lethal concentration within any of the following categories:

1. A chemical or substance that has a median lethal dose (LD_{50}) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

2. A chemical or substance that has a median lethal dose (LD_{50}) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours, or less if death occurs within 24 hours, with the bare skin of albino rabbits weighing between 2 and 3 kilograms each.

3. A chemical or substance that has a median lethal concentration (LC_{50}) in air more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume or dust, when administered by continuous inhalation for one hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

Unstable (Reactive) Material

Is a material that in the pure state, or as commercially produced, will vigorously polymerize, decompose or condense, become self-reactive, or otherwise undergo a violent chemical change under conditions of shock, pressure, or temperature, or in the absence of an inhibitor, or in the presence of contaminants, or in contact with incompatible materials.

- **Class 4:** Materials that, in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. This class includes materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures.

- **Class 3:** Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation. This class includes, materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures.

- **Class 2:** Materials that in themselves are normally unstable and readily undergo violent chemical change but do not detonate. This class includes, materials that can undergo chemical change with rapid release of energy at normal temperatures and pressures, and that can undergo violent chemical change and elevated temperatures and pressure.

- **Class 1:** Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures.

Water-Reactive Material

Material that explodes, violently reacts, produces flammable, toxic or other hazardous gases; or evolves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture. Water reactive materials are subdivided as follows:

- **Class 3**: Materials that react explosively with water without requiring heat or confinement.

- **Class 2:** Materials that may form potentially explosive mixtures with water.

- **Class 1:** Materials that may react with water with some release of energy, but not violently.

ATTACHMENT 1 – HMMP LONG FORM INSTRUCTIONS

CITY OF MESA
HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP)
LONG FORM INSTRUCTIONS

Long Form Overview

When quantities of hazardous materials exceed minimum storage amounts (see instructions), one draft copy of an HMMP (PLAN), completed in accordance with instructions contained on the following pages, must be prepared by the permit applicant and submitted for review and approval. One set of current Material Safety Data Sheets (MSDS), in alphabetical order, shall be submitted along with the PLAN. The PLAN shall be submitted in a three-ring binder, or in other hard copy form or electronic form approved by Fire Prevention, within the Fire Department. Material within the PLAN shall be divided into sections as indicated herein, and shall be marked by tab on the first page of each section. Section tabs shall indicate section number and title. All pages of the PLAN shall be numbered consecutively. An index showing section title and page number shall be included as the first page of the PLAN. Please note that any PLAN with missing, incomplete, or vague information will be rejected, and that for new construction, a Certificate of Occupancy may not be issued until the PLAN has been approved by Fire Prevention. Applicants shall:

1. Make any necessary corrections to the package once it is reviewed and returned.

2. Prepare two additional copies of the corrected original.

3. Then make the red lined (uncorrected) original and all three corrected copies available to Fire Prevention staff that will make the final inspection necessary.

Following approval of the PLAN by Fire Prevention, one copy of the approved PLAN shall be maintained on-site at a continuously staffed station, or otherwise be provided to the Fire Department immediately upon arrival of Fire Department staff responding to an chemical release or other emergency. Those facilities determined by Fire Prevention to be major industrial facilities, may be required to apply for and install an approved Knox cabinet containing key information and access means (i.e. keys, access cards or codes) at the main point of entry.

The PLAN requires the applicant to be familiar with the applicable portions of the Mesa Fire Code and related documents. The latest editions of the Mesa Fire Code **(2003 International Fire Code)** and related standards are available by contacting the International Code Council at 1.800.786.4452, or online at 222.iccsafe.org, or the

Builders Book Depot at 602.258.8808. City of Mesa amendments to the fire code can be found on our website at www.cityofmesa.org/fire.

An updated copy shall be submitted yearly. Please contact us for approval of alternate methods or formats of submittal.

At the time of permit renewal, the applicant need only provide information for the PLAN that has been changed or revised since the time of the previous application. The most current revision of instructions should be used for the submittal in order to keep up with code changes.

HMMP Long Form Contents

Section 1. Fire Department Response Plan

An emergency response plan jointly developed by the Fire Department and the facility will be included in this section. The PLAN mentioned, is a short summary of how the Fire Department and the facility will interact in the initial phases of an emergency. The PLAN will be based upon existing facility and Fire Department procedures.

Section 2. General Information

See the attached General Information Form. Fill out items 1 through 11, and sign the declaration. This section is required to be updated and submitted annually, or within 30 days of a change. Equivalent forms are acceptable.

Section 3. General Site Map

Provide a site plan on no larger than 11 x 17 inch paper, showing the location of all fire protection systems, process emergency shut-offs, buildings, structures, chemical loading areas, fire hydrants, utility and process gas shut-offs, fire department connections, domestic and emergency water shut-offs, parking lots, confined space locations, internal roads, storm and sanitary sewers, and adjacent property function or use. Indicate the scale used, northern direction and date the drawing was completed. List all special land functions or uses within one mile of your property (example: hospitals, schools, residential sub-divisions, other haz-mat facilities, etc).

In addition, each exterior hazardous materials storage area and tank shall be identified with a numbered diamond**.** The diamond shall reference a list showing chemical name and NFPA 704 health, flammability, and reactivity numbers for the chemicals identified.

An electronic drawing file may be submitted in place of the paper copy. If an electronic file is submitted, it must be in .dwg, .dxf, or .dgn format.

Section 4. Building Floor Plan and Hazardous Materials Storage Plan

Provide a floor plan for each building using standard architectural/NFPA symbols. The plan(s) shall be drawn to scale on 11 x 17 inch paper, showing the location of hazardous materials or waste within the building, and shall contain the following elements: fire alarm pull station, smoke detector, fire sprinkler riser, Knox box location, main utility shut-off, 704 fire diamond, HVAC, and fire alarm panel. Indicate the scale used, northern direction, and date the drawing was completed.

Please note that each hazardous materials storage area, room or control area shall be identified with the NFPA 704 health, flammability, and reactivity characteristic for the chemicals within the identified area. The floor plan of each floor of a multi-story building may be placed on separate sheets if consolidation on a single sheet proves impractical.

An electronic drawing file may be submitted in place of the paper copy. If an electronic file is submitted, it must be in .dwg, .dxf, or .dgn format.

Section 5. Hazardous Materials Inventory Statement (Chemical Inventory)

Complete the Hazardous Materials Inventory form(s) for this section (see attachment, comparable forms, may be used.) Please note that any RCRA hazardous wastes are treated as "hazardous materials" by the fire code, and must be included as such.

A separate Hazardous Materials Inventory form shall be submitted for each:

1. Building designated as a single occupancy.

2. Occupancy within a building (when there is more then one).

3. Exterior storage area.

4. Control area within a building.

For example, a building comprised of a B occupancy having two control areas, which also has an H-3 flammable liquids storage room and an H-2 mixing room; would have four HIMS documents submitted. A fifth HIMS document would be submitted for an exterior storage area.

Provide the latest Tier II reports at the end of this section if not already submitted to the City of Mesa for the current reporting year (See 40 CFR, Part 372.25).

Section 6. Hazardous Materials Handling

Provide a written summary that describes how the handling of hazardous materials between storage areas and manufacturing processes on-site is conducted in a manner to prevent the accidental release of such materials. The summary should not exceed one page in length.

Section 7. Chemical Compatibility And Separation

Provide information showing procedures, controls, signs, or other methods used to ensure separation and protection of stored materials from factors that could cause accidental ignition or reaction of ignitable, reactive or incompatible materials in each area.

Section 8. Hazardous Waste Disposal

List the formal arrangement (with at least one firm) for the clean up and disposal of hazardous materials following an accidental release. Provide a copy of the arrangement, including the name, location, and 24-hour emergency telephone number of the firm designated to perform the clean up and disposal services. A written proposal or quotation for services may serve as evidence to meet requirements of this section.

Section 9. Monitoring (Detection And Alarm) Program

List information including, but not limited to; the location, type, manufacturer's specifications (if applicable), and suitability of installed chemical monitoring or detection equipment systems for each storage facility or area, when required by the Fire Code or when otherwise in place. Provide a list of communication systems (internal and external), as well as fire detection and alarm systems.

Section 10. Inspection And Record Keeping

Information regarding a facility inspection procedure by facility staff and a log of unauthorized discharges of hazardous materials shall be included in this section.

Develop and follow a written inspection procedure for inspecting the facility for malfunctions and deterioration, poor housekeeping practices, which may be causing or may lead to unauthorized discharges of hazardous materials. These inspections must be of a frequency appropriate to the possible deterioration of equipment and facilities and to the probability of human error, and of sufficient frequency to detect problems prior to discharge. Unless otherwise approved by the Fire Marshal, inspection frequency shall be no greater then once every 30 days. An inspection sheet shall be created and maintained for Fire Department review and shall include the following elements:

1. Dates, times, and location(s) of inspections.

2. Name of inspector.

3. Problems discovered during inspections.

4. Date, time, and nature of corrective action(s).

5. Counter signature of the designated safety manager for the facility showing the corrective action that has been taken.

The separate log of unauthorized hazardous material discharges shall be created and maintained by the applicant. The log shall note the:

1. Date, time, location, and reason(s) for the discharge.

2. Type of material and quantity released.

3. Corrective action taken.

4. Whether or not the Fire Department was contacted for emergency assistance.

Section 11. Employee Training

Specify in this section how employee training requirements (MFC 2703.9.1) are to be met. For example, contents may be in accordance with the following example:

All employees are trained in accordance with 29 CFR 1910.1200(h) "Employee Information and Training."

Section 12. Other Hazardous Materials Related Permits

Provide a list of each hazardous materials permit required by other government agencies (example: radioactive materials, wastewater discharge, etc.). Include the type of permit; the agency that issued the permit, the permit identification number, as well as the telephone number and address of the agency that issued the permit, the date of issue and expiration. If other permits are not required, please insert a typed page stating, "No other permits are required" in this section.

Section 13. Contingency Plan

In this section, provide a copy of the facility contingency or emergency response plan.

Include a list of all portable emergency equipment at the facility such as spill and leak control equipment, chemical protective clothing, portable monitoring/sampling devices, decontamination and neutralization supplies, and equipment. Specify the number of units on hand, capabilities of the equipment (such as chemical compatibility of protective clothing), and their normal storage/use locations.

ATTACHMENT 2 – HMMP LONG FORM CHECKLIST

CITY OF MESA HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) LONG FORM CHECKLIST (Refer to HMMP Long Form Instructions for details)

Business: _____ Reference #: _____

Business Address: _____ RP/Contact: _____

HMMP Contents

Section 1—Fire Department Response Plan

- ☐ Provide description of facility emergency procedures

Section 2—General Information

- ☐ Business name and address
- ☐ Emergency contacts
- ☐ Describe business activity
- ☐ Business owner or operator
- ☐ NFIRS property use
- ☐ Number of employees and hours/shifts
- ☐ Dunn and Bradstreet number
- ☐ Signature of owner, operator, or designated operator

Section 3—General Site Map

- ☐ Legible, no larger than 11" by 17"
- ☐ Locations of buildings, structures
- ☐ Exterior storage facilities, identified with NFPA 704 diamond(s)
- ☐ Chemical loading areas
- ☐ Fire protection system(s)
- ☐ Process emergency shut-offs
- ☐ Fire hydrants
- ☐ Utility and process gas shut-offs
- ☐ Fire department connections
- ☐ Domestic and emergency water shut-offs
- ☐ Parking lots
- ☐ Confined space locations
- ☐ Interior roads
- ☐ Storm and sanitary sewers
- ☐ Adjacent property use
- ☐ Indicate scale used, northern direction, and date of drawir
- ☐ List of all special land functions or use within one mile of property
- ☐ Permanent access ways
- ☐ Evacuation and emergency assembly areas
- ☐ Equipment cleaning areas
- ☐ Emergency response equipment

Section 4—Building Floor Plan and Hazardous Materials Storage Plan

- ☐ Legible, no larger than 11" by 17"
- ☐ Evacuation routes
- ☐ Rooms, doorways, corridors, and exits identified
- ☐ Location of hazardous materials or waste within building, including NFPA 704 diamond(s)
- ☐ Fire alarm pull stations
- ☐ Smoke detectors
- ☐ Fire sprinkler riser(s)
- ☐ Knox box location(s)
- ☐ Main utility shut-off
- ☐ Fire alarm panel
- ☐ Indicate scale used, northern direction, and date of drawing

Section 5—Hazardous Materials Inventory Statement (Chemical Inventory)

- ☐ Provide HMIS per instructions
- ☐ Separate HMIS for each occupancy, control area, and exterior storage area

Section 6—Hazardous Materials Handling

- ☐ Describe safe handling procedures between storage and manufacturing areas

Section 7—Chemical Compatibility and Separation

- ☐ Describe measures taken to ensure separation/protection of hazardous materials from sources of ignition or from potential reactants/incompatibles

Section 8—Hazardous Waste Disposal

- ☐ Formal arrangement made for cleanup and disposal
- ☐ Provide copy of arrangement

Section 9—Monitoring (Detection and Alarm) Program

- ☐ Location
- ☐ Type
- ☐ Manufacturer's specifications (if applicable)
- ☐ Suitability

Section 10—Inspection and Record Keeping

Provide schedules and procedures for inspecting:

- ☐ Safety equipment
- ☐ Monitoring equipment
- ☐ Emergency equipment
- ☐ Housekeeping related to hazardous materials safety

Inspection sheet(s) developed to include:

- ☐ Date, time, and location of inspection
- ☐ Problems noted with dates and times of corrective action taken
- ☐ Name of inspector
- ☐ Countersignature of designated safety manager for the facility showing the corrective action that has been taken

A separate log of unauthorized hazardous material discharges to include:

- ☐ Date, time, location, and reason(s) for the discharge
- ☐ Type of material and quantity released
- ☐ Corrective action taken
- ☐ Whether or not the fire department was contacted for emergency assistance

Section 11—Employee Training

- ☐ Included program
- ☐ Instruction in safe handling and storage
- ☐ Instruction in maintenance of records

Instruction in emergency procedures, including:

- ☐ Leaks, spills, fires, explosions
- ☐ Operations shutdowns
- ☐ Evacuation procedures
- ☐ Record keeping for employee training

Section 12—Other Hazardous Material Related Permits

Provide a list of each hazardous permit required by other government agencies.

- ☐ Type of permit
- ☐ Agency issuing the permit, including address and phone number
- ☐ Permit identification number
- ☐ Date of issue of permit and expiration

Section 13—Contingency Plan

- ☐ Include copy of contingency or emergency response plan

Include a list of the following equipment, including number of units on hand, the capabilities of the equipment, and normal stor locations.

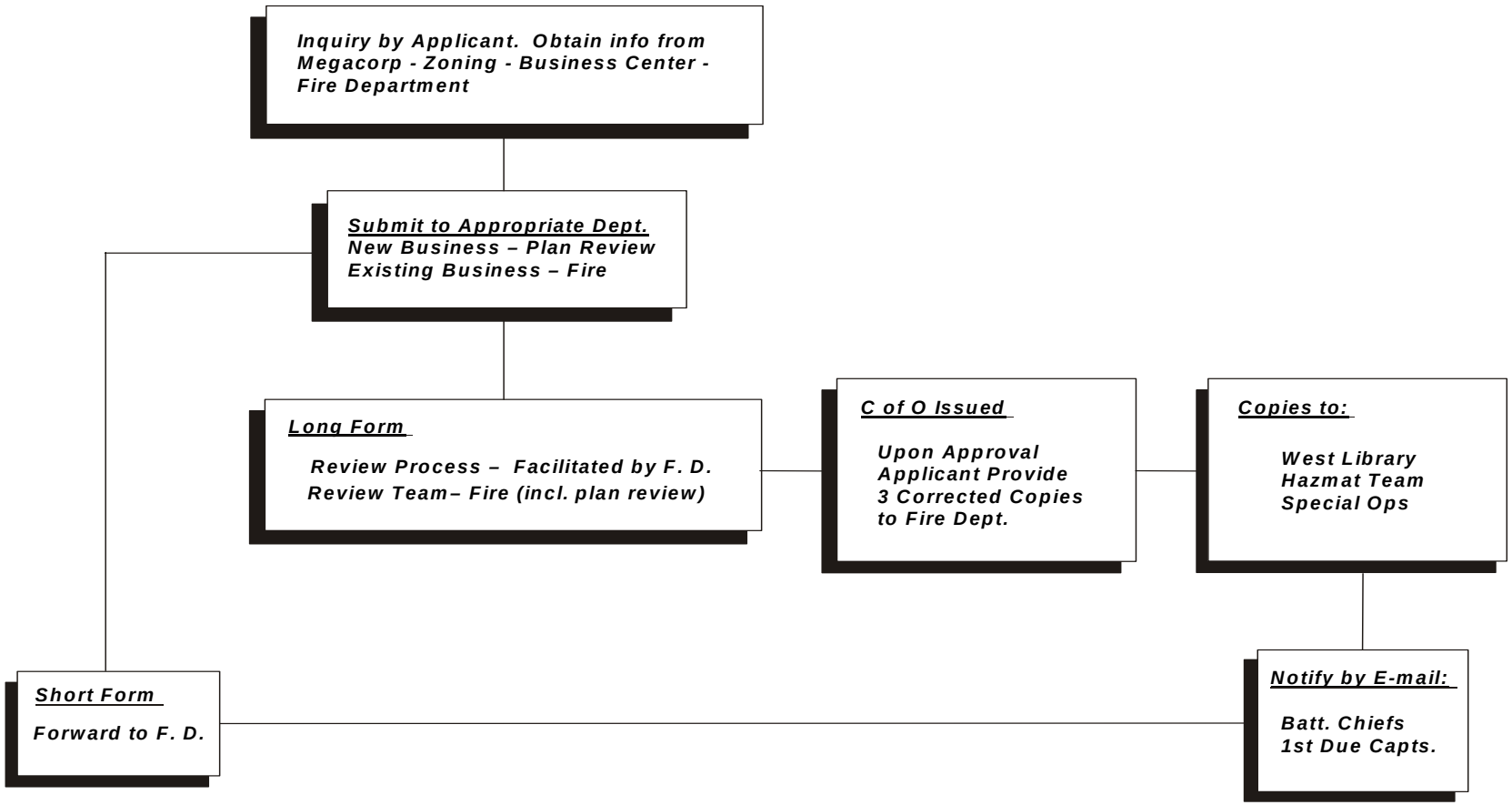
- ☐ Spill and leak control equipment
- ☐ Chemical protective clothing
- ☐ Portable monitoring/sampling devices
- ☐ Decontamination/neutralization supplies and equipment

Reviewed by: _____ **Date:** _____

Review is: Initial _____ **Revision no.** _____

ATTACHMENT 3 – HMMP ROUTING

CITY OF MESA
HAZARDOUS MATERIALS MANAGEMENT PLAN
ROUTING



ATTACHMENT 4 – HMMP SHORT FORM INSTRUCTIONS

CITY OF MESA
HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) SHORT FORM INSTRUCTIONS

Business Name: _____ BSD Permit #_____Reference #: _____

Address: _____ Bus. Phone: _____

- ☐ Attach a site plan or floor plan showing storage of hazardous materials, the hazard classes, and the various states (gases, liquids, and solids) of the chemicals.
- ☐ Attach completed Hazardous Materials Inventory Statements and Material Safety Data Sheets.
- ☐ Explain how your hazardous materials are used and describe the process(as).
- ☐ Complete the attached General Information Form.
- ☐ Provide information on how your hazardous materials will be stored.
- ☐ Explain in writing how your hazardous materials are handled safely.
- ☐ Describe security measures that will be followed.
- ☐ Provide a description of your employee(s) training, regarding proper handling and emergency response.
- ☐ Indicate on site plan/floor plan/maps where placards and warning signs are posted.
- ☐ Provide documentation on how you properly dispose of your hazardous materials (including hazardous waste).
- ☐ If you have any questions, you may call the Inspections Division of the Building Department at 480 644-4273.
- ☐ If you have any questions for Fire Prevention, you may call 480 644-2622.

ATTACHMENT 5 – HMIS INSTRUCTIONS FOR COMPLETION

CITY OF MESA HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) INSTRUCTIONS FOR COMPLETION

General Instructions: Please type or *legibly* print out all available information. Each numbered item corresponds to a line or space on the Hazardous Materials Inventory Statement (HMIS). Most of the requested information can be found on the Material Safety Data Sheet (MSDS) for the applicable material.

This form is incomplete without Page 1, Cover Sheet, including signature

1. **Business Name:** Enter the name of the business occupying the site for which the inventory is being submitted.

2. **Fire Department Reference #:** Leave blank, this is for Fire Department use only. Leave blank.

3. **Permit #:** Enter the City of Mesa Building Safety Department permit number, if applicable.

4. **Address:** Enter the physical street address of the business occupying the site for which the inventory is being submitted. Include direction (E, W, N, or S), street type (Ave., Cir, etc.)

5. **Bldg. #:** Enter the building and/or suite number(s).

6. **Control Area:** Enter control area location.

7. **Location on Site:** Enter the exact location of hazardous materials on site (inside, outside, cabinets, storage rooms, etc) (for example, inside the building on the second floor in the northwest corner cabinets or outside the building on the east corner in the storage cabinets, etc)

8. #: Enter the number, for example 1, 2, 3, etc., in numerical order.

9. **Chemical Name and Concentration:** List each material by its chemical name. If material is a mixture (more than one component), list brand name, and enter "mixture" into the CAS # space (for mixtures, do not enter all components; information will be for the hazard of the material material's hazard as a whole.

10. **CAS #:** Enter the Chemical Abstract Service (CAS) number for the material, for example chlorine=7782-50-5. For mixtures, (more than one component) write enter "mixture"

11. **Use Amount (Open/Closed):** "Use" is defined as placing a hazardous material into action including solids, liquids, and gases. Enter the use amount in the appropriate field for the following:

- Use (Open System): If use of a solid or liquid hazardous material in a vessel/system is continuously open to the atmosphere during normal operations and where the vapors are liberated or the product is exposed to the atmosphere during normal operations, for example, plating tanks or automotive parts washers.

- Use (Closed System): If vapors are not emitted outside the vessel/system during normal operations and if the product is not exposed to the atmosphere during normal operations and all uses of compressed gases, for example fuel transfer and medical gas piping.

12. **Storage Amount**: Enter the average maximum total quantity **stored** at one time. This does not include the amount that is "in use".

13. **Outdoor Amount:** Enter the total amount of hazardous materials outside building(s), both in storage and in use.

14. **Hazard:** The Mesa Fire Code (MFC) Hazard Classification. Enter the MFC Hazard Classification If the material has a physical and/or a health hazard, enter (by code) all the types of hazards that apply. See Table 1 on next page for applicable codes. Some materials may have multiple hazards, both physical and health related. For example, enter Example: chlorine = OLG/COR/TOX for chlorine.

15. **Physical State:** Indicate the physical state by entering whether the material is pure (P), a mixture (M), solid (S), liquid (L), or gaseous (G). Include all that apply. For example, if material is present in both liquid and gaseous form, indicate enter L/G.

16. **NFPA 704©:** Provide the numbered hazard values by entering (0-4) for each hazard presented by the material corresponding to the NFPA© 704 hazard diamond; (H) health, (F) fire, (R), reactivity, and (SP) special hazards present. Special hazards include oxidizer (OX), corrosive.

17. **DOT I.D:** Enter four-digit Department of Transportation hazard number for material. Example: chlorine 1017.

18. **DOT Hazard:** Enter the Department of Transportation hazard class code for material. For example, enter 2.3 for: chlorine = 2.3

19. **Storage Type:** Enter the type of container(s) material is primarily stored in. List all that apply using the letter code found in Table 2 below.

20. **Units:** Enter the unit of measurement used for the material (pounds, gallons, grams, feet, etc.)

21. **Chemical Hazards:** Indicate all hazards presented by the material, both physical: fire (F), pressure (P), reactivity (R), and then enter the health effect(s), either; acute (A), or chronic (C).

CITY OF MESA CLASSIFICATION BY HAZARD

Table 1

Physical Hazards

CL2	Combustible liquid, Class II
C3A	Combustible liquid, Class III-A
C3B	Combustible liquid, Class III-B
CMF	Combustible fiber
CRF	Cryogenic, flammable
CFC	Consumer fireworks (Class C Common)
CR	Cryogenic, oxidizing
EXP	Explosives
FG	Flammable gas
F1A	Flammable liquid, 1-A
F1B	Flammable liquid, 1-B
F1C	Flammable liquid, 1-C
CFL	Combination flammable liquid
FLS	Flammable solid
OPD	Organic peroxide, unclassified detonable
OP1	Organic peroxide, Class 1
OP2	Organic peroxide, Class 2
OP3	Organic peroxide, Class 3
OP4	Organic peroxide, Class 4
OP5	Organic peroxide, Class 5
OX1	Oxidizer, Class 1
OX2	Oxidizer, Class 2
OX3	Oxidizer, Class 3
OX4	Oxidizer, Class 4
OGG	Oxidizing gas, gaseous
OLG	Oxidizing gas, liquefied
PYR	Pyrophoric
UR1	Unstable (reactive), Class 1
UR2	Unstable (reactive), Class 2
UR3	Unstable (reactive), Class 3
UR4	Unstable (reactive), Class 4
WR1	Water reactive, Class 1
WR2	Water reactive, Class 2
WR3	Water reactive, Class 3

Health Hazards

COR	Corrosives
HTX	Highly toxics
TOX	Toxics

Note: A material with a primary classification within one class can also present a hazard in another class. Be sure to list all applicable hazards for each material.

Table 2

A. Above-ground tank
B. Below-ground tank
C. Tank inside building
D. Steel drum
E. Plastic or non-metallic drum
F. Can
G. Carboy
H. Silo
I. Fiber drum
J. Bag
K. Box
L. Cylinder
M. Glass bottles or jugs
N. Plastic bottles or jugs
O. Tote bin
P. Tank wagon
Q. Rail car
R. Other

ATTACHMENT 6 – HAZARDOUS MATERIALS INVENTORY STATEMENT

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CITY OF MESA
HAZARDOUS MATERIALS INVENTORY STATEMENT

Business Address _____ Permit # _____

Business Name _____ Reference #_____ Phone # _____

Business Owner Name _____ Bus. Phone # _____

Business Responsible Party _____ Phone # _____

INDICATE EQUIPMENT OR PROCESS INVOLVING ANY OF THE BELOW MATERIALS:

❒ Hydraulic Equipment	❒ Dust Collectors	❒ Drying Rooms	❒ Fiberglass Operations
❒ Indust/Medical Gas	❒ Electro Plating	❒ Flow Coaters	❒ Dry Cleaning
❒ Picking or Garnetting	❒ Spray Painting	❒ Dip Tanks	❒ Aboveground Tanks
❒ Magnesium Processing	❒ Ovens, Process	❒ Baler or Shredder	❒ Underground Tanks
❒ Molten Salt Baths	❒ Welding/Cutting	❒ Others	❒ Others

❒ This facility does not contain any hazardous materials as defined in Chapter 27 of the Mesa Fire Code

❒ List all hazardous materials on Page 2 and additional pages, if necessary, for storage and use, using the unit of measure indicated in the Instructions for Completion.

❒ Classify all materials for their physical and health hazards. Please print and use additional pages as necessary. The City of Mesa uses the "Hazardous Materials Classification Guide."

❒ Submit a current M.S.D.S. for each material listed.

❒ Show on your plans (for new construction), or on a site map, the locations of all hazardous materials in storage and use.

❒ Changes in materials or quantities for storage or use causing an increase of 5 percent shall be reported to the Mesa Fire Department, Fire Prevention office within 30 days.

I CERTIFY THAT THE INFORMATION CONTAINED IN THIS REPORT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT ANY FALSE STATEMENTS OR MISREPRESENTATIONS MAY RESULT IN THE REVOCATION OF MY CERTIFICATE OF OCCUPANCY, AND/OR CRIMINAL PROSECUTION. VIOLATIONS OF STATUTES AND REGULATIONS PERTAINING TO THE USE, HANDLING AND DISPOSAL OF HAZARDOUS SUBSTANCES MAY RESULT IN CRIMINAL AND/OR CIVIL PROSECUTION. (A.R.S. & 49-261, 262, 263 & 49-923, 924, 925.)

Business Owner or Responsible Party	Signature	Date
Inspector/Reviewer	Title	Date

HAZARDOUS MATERIALS INVENTORY STATEMENT

Business Name: _____ **Fire Dept. Reference #** _____ **Permit #** _____

Address:_____ Outdoor Amount **Bldg. #:** _____**Control Area:** _____ **Location on Site:**_____

#	Chemical Name and Concentration	CAS #	Use Amount		Storage Amount		Hazard Physical (P) or Health (H)	Physical State	NFPA 704				DOT ID	DOT Hazard	Storage Type	Units	Chemical Hazards
			Open	Closed					H	F	R	O					

ATTACHMENT 7 – HAZARDOUS MATERIALS GENERAL INFO FORM

CITY OF MESA
HAZARDOUS MATERIALS GENERAL INFORMATION FORM

1. Business
   Name:_____ Phone:_____

   Address: _____Reference # _____

2. Person Responsible for the Business:

Name	Title	Phone

3. Emergency Contacts\Coordinators:

Name	Title	Home Phone	Work Phone

4. Person Responsible for the Application\Principal Contact:

Name	Title	Phone

5. Property Owner:

Name	Business Address	Work Phone
	Home Address	Home Phone

6. Principal Business Activity:_____
   _____

7. Number of Employees:_____ 8. Number Shifts/Time Shifts Change:_____/_____

9. Hours of Operation: ____ 10. Number Assigned to Each Shift:_____

11. Declaration
    I certify that the information above and on the attached documents is true and correct to the best of my knowledge.

Signature:_____ Date:_____

Print Name:_____ Title:_____
(Must be signed by owner/operator or designated representative)

Updates and amendments must be submitted to the Fire Department annually or within 30 days of a change.