



FIRE SAFETY IN A "WEED" FACILITY

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INTRODUCTION

- IN 2006, OVER 60% OF MICHIGAN'S VOTERS PASSED A REFERENDUM LEGALIZING MARIJUANA USE FOR MEDICAL REASONS
- IT REMAINS A FEDERAL OFFENSE
- CITIES PASSED ORDINANCES TO ALLOW IT OR NOT

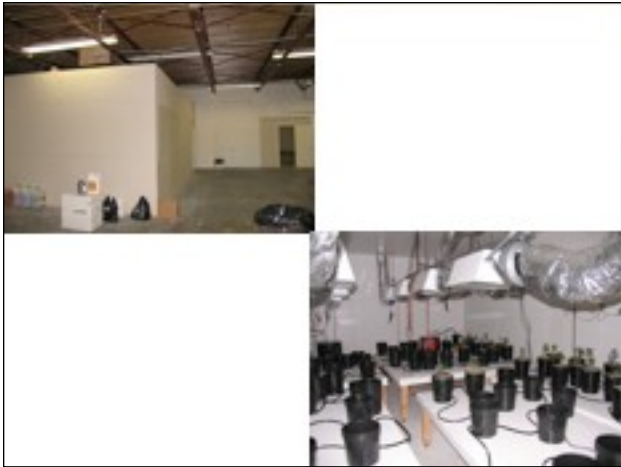
INTRODUCTION

- AN INCREASE IN FIRES INVOLVING GROW OPERATIONS HAS ESCALATED IN THE UNITED STATES, CANADA AND GREAT BRITAIN.
- MICHIGAN REFERENDUM IS VERY VAGUE, LEAVING INDIVIDUALS WITH THE FEAR THAT THEY CAN BE ARRESTED AND CHARGED WITH A FELONY

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MARIJUANA GROW OPERATIONS

- APPEARANCE
- HAZARDS
 - INGRESS AND EGRESS
 - ELECTRICAL
 - HVAC
 - BOOBY TRAPS
 - ENTANGLEMENT
 - CO2 AND CO
 - FLAMMABLE GASES
 - CHEMICALS
- MITIGATION OF HAZARDS
- COURT TESTIMONY

APPEARANCE





WINDOWS



WINDOWS



UNUSUAL CONTAINERS



UNUSUAL CONTAINERS



SECURITY - GETTING IN AND OUT



SECURITY - GETTING IN AND OUT



SECURITY - GETTING IN AND OUT



EGRESS



EGRESS



EGRESS



ELECTRICAL HAZARDS

- REMINISCENT OF A PLATE OF SPAGHETTI
- VERY EXTENSIVE AND ELABORATE WIRING
- TYPICALLY NOT INSTALLED TO CODE
- TREACHEROUS EXPOSED AND CONVOLUTED ARRANGEMENTS

ELECTRICAL HAZARDS



BASEMENT PANELS



HIGH VOLTAGE TRANSFORMERS



FROM ROOM TO ROOM



EXPOSED WIRING



EXTENSION CORDS



WIRING FROM FLOOR TO FLOOR



OBVIOUSLY NOT UP TO CODE



IT WORKS



LIGHTING - LAMP FIXTURES



HIGH-VOLTAGE MERCURY OR HIGH PRESSURE SODIUM LAMPS



OTHER ELECTRICAL EQUIPMENT



OTHER ELECTRICAL EQUIPMENT



**EXCESSIVE LAMPS OVERLOADED
CIRCUITS**



HVAC



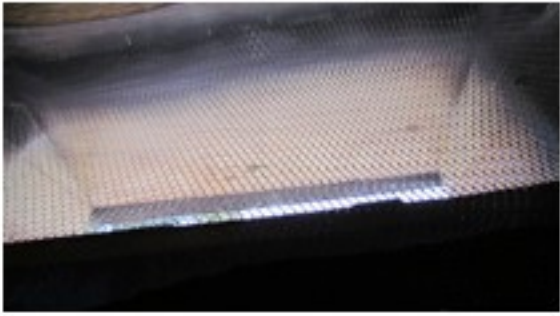
DUCTS



**DUCT COMING FROM FLOOR
BELOW**



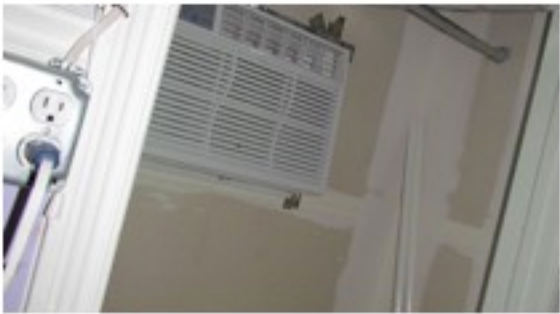
ALTERED ROOF



ATTIC AIR CONDITIONER



WINDOW AIR CONDITIONERS



HVAC



BOBBY TRAPS

-USUALLY NOT INTENDED FOR FIREFIGHTERS

-MEANT TO STOP THIEVES AND LAW ENFORCEMENT RAIDERS

-CAN BE SIMPLE OR ELABORATE

-INQUIRE BEFORE INSPECTION



CO AND CO2

- CARBON DIOXIDE IS OFTEN ARTIFICIALLY INTRODUCED
- OXYGEN DEFICIENT ATMOSPHERES CAN BE CREATED
- O2 LEVELS OF 19.5% AND BELOW, OR 23.5% AND HIGHER CAN BE VERY DANGEROUS

NATURAL GAS FIRED CO2 GENERATOR





FLAMMABLE GASES

- NATURAL GAS
- PROPANE
- IMPROPER FITTINGS, LOOSE CONNECTIONS, DAMAGED HOSES

CHEMICALS



CHEMICALS

- FERTILIZERS
- FUNGICIDES
- PESTICIDES
- ACIDS
- BASES
- VOLATILE SOLVENTS
- FLAMMABLE GASES

STRUCTURAL ALTERATIONS



PENETRATIONS



DETERIORATION OF STRUCTURE



MITIGATION

- MULTIDISCIPLINE APPROACH
 - BUILDING OFFICIAL
 - MECHANICAL INSPECTOR
 - ELECTRICAL INSPECTOR
 - FIRE INSPECTOR
 - HAZARDOUS MATERIALS SPECIALIST
 - LEGAL STAFF

INITIAL ASSESSMENT

- BEGINS WITH INITIAL ASSESSMENT
 - IDENTIFY HAZARDS STEMMING FROM PHYSICAL AND STRUCTURAL CHANGES TO THE BUILDING
 - HAZARDS THAT ORIGINATE FROM ALTERATIONS TO WIRING AND ELECTRICAL POWER
 - PRESENCE OF BIOLOGICAL HAZARDS SUCH AS MOLD
 - PRESENCE OF CHEMICAL HAZARDS RELATED TO SPILLS AND RESIDUES FROM THE USE OF PESTICIDES, FERTILIZERS AND

PROCEDURE

- IDENTIFY HAZARDS
- POST "DO NOT OCCUPY" AND ISSUE VIOLATIONS IF NECESSARY
- OWNER MUST APPLY FOR AND OBTAIN A DEMO PERMIT – OUTLINE DEMO PROCEDURES AND TIMELINE
- REQUIRE BASELINE TESTING FOR CHEMICAL CONTAMINATION AND MOLD ISSUES

PROCEDURES

- ONCE DEMO AND CLEAN UP IS COMPLETE OWNER SHALL PULL CONSTRUCTION, ELECTRICAL, AND MECHANICAL PERMITS PRIOR TO STARTING WORK
- A PLAN SHALL BE SUBMITTED AND SHOULD INCLUDE TIMELINES FOR COMPLETION
- POST TESTING TO ENSURE CHEMICAL CONTAMINATION AND MOLD HAS BEEN REMOVED SATISFACTORILY

COURT TESTIMONY

- RIGHT OF ENTRY
 - ACT 207
 - LOCALLY ADOPTED FIRE CODES
- CONSULT WITH PROSECUTING ATTORNEY
 - GO OVER QUESTIONS THEY WILL ASK
 - CONSULT THEM ON FIRE CODE VIOLATIONS
 - PROVIDE THEM WITH HISTORY OF STRUCTURE
- PREPARE CASE
 - PREPARE AND PROVIDE CV
 - REPORT SHOULD BE DETAILED
 - HAVE PICTURES PRINTED AND LABELED
 - REVIEW REPORT BEFORE TRIAL
- FACTS ONLY
 - STATE FACTS ONLY

