

Emerging Hazardous Waste Stream: Marijuana/Cannabis/Hemp

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- Typical farms in Arizona
- Hazardous waste generation
- Presence in hazardous waste universe
- Inspection approach
- Increase compliance



- Geared towards medical marijuana (1996), preparing for recreational
 - 193,000 qualified patients, increased 21% in last year
 - 2016 vote for recreational marginally failed (1.7%)
 - 130 dispensaries, must grow own product
 - One company sold for \$33 million, another \$45 million
- Indoors
- Variably sized (largest observed is 30 acres)
- Rural areas
- Smaller farms follow guidelines/suggestions for growing tomatoes

- Depends on extraction method
 - Alcohol or solvent
 - Supercritical CO₂
 - Butane or propane
 - Solvent-free
- Ethanol most common in Arizona
- Pesticides
- Fertilizers
- Corrosive greenhouse cleaners



- Complaints
- Generator status
 - Unknown
- Waste determinations
 - Possibly inexperienced in this area
- May be subject to other regulations
 - Arizona Aquifer Protection Permit Program
 - Industrial wastewater requiring permit under Pharmaceutical Manufacturing Point Source Category 40 CFR 439 Subpart D



- Complaints – no advanced notification
- Lawyers tend to get involved, warrants are needed
- May end up on the five o'clock news
- Document everything, come with appropriate representation
 - Some are guarded with firearms
- Focus on compliance assistance



Complaint & Follow-up Visit



Complaint & Follow-up Visit



Complaint & Follow-up Visit



- Compliance assistance mindset
- Revisit site in 6 months – 1 year
- Offer hazardous waste regulation workshops
- Pamphlets for Arizona Growers
- Open lines of communication



Thank you for your attention!

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