



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

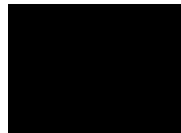
**Industrial Hygiene Review
and
Finding of Noncompliance
And Regulatory Misconduct
of an
Identified Illegal Drug Laboratory**

**2745 South Hooker Street
Denver, Colorado**

**Prepared for:
Confidential**

Prepared by:

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.
185 Bounty Hunter's Lane
Bailey, CO 80421



November 12, 2011

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EXECUTIVE SUMMARY

Forensic Applications Consulting Technologies, Inc. (FACTs) was asked by a confidential investigator to review two document packages prepared by Century Environmental Hygiene, LLC. The confidential investigator provided FACTs with two documents for review for regulatory compliance and completeness. Specifically, the investigator asked FACTs to review the following:

Preliminary Assessment For Methamphetamine Prepared for: Metro Brokers Dubrova and Associates ATTN: Ms. Marina Dubrova 550 South Wadsworth Blvd. Suite 590 Lakewood, CO 80226 Assessment Location: 2745 S. Hooker Street Denver, CO April 13, 2011 Project 3165.11

Final Report For Methamphetamine Testing and Remediation Prepared for: Metro Brokers Dubrova and Associates ATTN: Ms. Marina Dubrova 550 South Wadsworth Blvd. Suite 590 Lakewood, CO 80226 Assessment Location: 2745 S. Hooker Street Denver, CO August 3, 2011 Project 3165.11

Both of the documents mentioned above are already in the Public Domain and are documents of public record on file and available for public viewing with the City and County of Denver. There is no confidentiality associated with the reviewed documents or this review of those public records.

Upon reviewing the documents, FACTs finds the following:

General Findings

- Measured levels of methamphetamine in the property following “clearance” sampling greatly exceeds the regulatory limit. FACTs collected samples from the property and conclusively confirmed that methamphetamine levels in the property were as high as 12 times over the lawful limit.
- FACTs identified no fewer than 38 violations of State regulations regarding the decontamination and compliance activities required for this property.
- Century Environmental Hygiene ignored and/or violated the provisions of Colorado Regulations 6 CCR 1014-3. Specifically, Century Environmental Hygiene violated and/or ignored the following sections:
- PRELIMINARY ASSESSMENT
 - Failure to Provide Authorized Personnel
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.4
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.3
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.4
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.5
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Bias Sampling
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Prohibited Surfaces

- Failure to comply with 6 CCR 1014-3 Paragraph 4.10
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.11
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.13
 - Failure to comply with 6 CCR 1014-3 Paragraph 6.0
 - Failure to comply with 6 CCR 1014-3 Section 6.1.1
 - Failure to comply with 6 CCR 1014-3 Section 6.6
 - Section 8.21 Statements of Qualifications
- DECONTAMINATION
 - Failure to Comply With Section 4.0
 - Failure to Comply With Paragraph 5.2
 - Failure to Comply With Paragraph §5.3
 - Failure to Comply With Paragraph §5.4
- POST DECONTAMINATION ACTIVITIES
 - Failure to Provide Authorized Personnel
 - Failure to Comply with Appendix A - Sampling Theory
 - Failure to comply with 6 CCR 1014-3 6.0.3
 - Failure to comply with 6 CCR 1014-3 6.1
 - Failure to comply with 6 CCR 1014-3 6.1
 - Failure to comply with 6 CCR 1014-3 6.1.1.
 - Failure to comply with 6 CCR 1014-3 6.1.2.
 - Failure to Comply with Appendix A – Prohibited Surfaces
 - Failure to Comply with Appendix A – Insufficient Surface Areas
 - Failure to Collect Samples from Mandatory Locations
 - Failure to comply with 6 CCR 1014-3 7.0
 - Failure to comply with 6 CCR 1014-3 7.1
 - Failure to comply with 6 CCR 1014-3 8.0
 - Failure to comply with 6 CCR 1014-3 8.7
 - Failure to comply with 6 CCR 1014-3 8.8
 - Failure to comply with 6 CCR 1014-3 8.20
 - Failure to comply with 6 CCR 1014-3 8.21
 - Failure to comply with 6 CCR 1014-3 8.22
 - Failure to comply with 6 CCR 1014-3 8.23
 - Possible Violation of CRS §18-5-114

In addition to the regulatory violations, Mr. Dennison of Century Environmental Hygiene also violated the following AIHA Code of Ethics:

- Violation of AIHA (I)(A)(1)
- Violation of AIHA (I)(A)(5)
- Violation of AIHA (II)(A)(1)
- Violation of AIHA (II)(A)(2)
- Violation of AIHA (II)(A)(3)
- Violation of AIHA (II)(A)(5)
- Violation of AIHA (II)(A)(6)

- Violation of AIHA (II)(C)(1)
- Violation of AIHA (II)(C)(2)
- None of the sampling performed at 2745 South Hooker Street, Denver, Colorado was performed in a manner as required by State regulations.
- Decontamination efforts at the property were in violation of State regulations.
- Decontamination at the property was not performed as described in the final documentation.
- Sampling performed by FACTs on Thursday, November 3, 2011 confirmed that elevated concentrations of methamphetamine in excess of State regulations exist in the house.
- No legitimate Preliminary Assessment was performed for this property as required.
- No legitimate post remediation sampling was performed at this property as required by regulation.
- As of the date of this discussion, the residential structure located at 2745 South Hooker Street, Denver, Colorado remains a noncompliant illegal drug laboratory that has not met the State of Colorado clean-up standards.
- Therefore, the property was required to be disclosed as an illegal drug laboratory pursuant to CRS §38-35.7-103 (3)(a). Since the regulations were not followed, (the seller did not have a legitimate Preliminary Assessment performed, did not have the property remediated pursuant to State regulations, and did not have legitimate post mitigation sampling performed, and hired a consultant known to provide false information), the seller cannot avail of the nondisclosure permitted by CRS §38-35.7-103 (4)
- As of the date of this discussion, the residential structure located at 2745 South Hooker Street, Denver, Colorado is a public health nuisance as defined by CRS §25-18.5-105 and pursuant to CRS §16-13-303 is a Class 1 public health nuisance.

INTRODUCTION

On Monday March, 8, 2011, FACTs visited the property and performed state of the art sampling for the determination of the presence of methamphetamine. FACTs issued its report of our findings on March 14th, 2011. Pursuant to State statutes, the seller was provided with a copy of the cursory evaluation and the property was thereby “discovered,” and “notification” was given to the seller.

On April 13, 2011 and again on August 3, 2011, Mr. James Dennison, with Century Environmental Hygiene, LLC visited the property and performed field activities that were both inconsistent with State regulations as well as in violation of State regulations.

Century Environmental Hygiene, LLC, has an extended documented history of gross technical incompetence, botched illegal drug laboratory assessments and regulatory violations.^{1,2,3,4,5,6} During these reviews FACTs has identified the same recurring patterns of incompetency and violations, therefore it would appear that the violations identified in this audit are willful and intentional.

Executive Summary of Report Dated April 13, 2011

- The work products (assessments) prepared by Century Environmental Hygiene (CEH) exhibited gross and profound lack of technical competency in the assessment of illegal drug labs and the relation of those assessments in the context of regulatory requirements.
- CEH has made abjectly false statements in its reports.
- The document identified as a “Preliminary Assessment” was not prepared in a manner consistent with applicable State Regulations.
- The work identified as a “Preliminary Assessment” failed to meet the minimum mandatory elements of a Preliminary Assessment and failed to comply with the following mandatory elements of a State mandated Preliminary Assessment:
 - Failure to Provide Authorized Personnel
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.4
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.3
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.4
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.5
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Bias Sampling
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Prohibited Surfaces
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.10

¹ 3509 Montrose Street, Evans CO (4/5/06) <http://forensic-applications.com/meth/Initial-review.pdf>

² 1812 164th Place, Thornton CO (4/23/09) <http://forensic-applications.com/meth/164thCriticalReview.pdf>

³ Property address sealed by court order (9/23/09)

⁴ 24018 Deer Valley Road, Golden, CO (8/25/10) <http://forensic-applications.com/meth/DVRCriticalReview.pdf>

⁵ Columbine Apartments, Unit A107 605 Wickes Ave. Craig, CO 81625 (12/30/07) <http://forensic-applications.com/meth/columbinepreliminaryassessment.pdf>

⁶ 19042 E 53rd Ave., Denver, CO (12/10/08) <http://forensic-applications.com/meth/gollaspa.pdf>

- Failure to comply with 6 CCR 1014-3 Paragraph 4.11
 - Failure to comply with 6 CCR 1014-3 Paragraph 4.13
 - Failure to comply with 6 CCR 1014-3 Paragraph 6.0
 - Failure to comply with 6 CCR 1014-3 Section 6.1.1
 - Failure to comply with 6 CCR 1014-3 Section 6.6
 - Section 8.21 Statements of Qualifications
- The document identified as a “Preliminary Assessment” is fatally flawed and is invalid.
 - The document identified as a “Preliminary Assessment” was prepared by an individual who has an extended track record of performing fatally flawed assessments, and has, to our knowledge, never completed a Preliminary Assessment that is valid.
 - The document identified as a “Preliminary Assessment” was not prepared by personnel demonstrated as being authorized or trained to perform the work.

REVIEW OF THE APRIL 13, 2011 DOCUMENT

Failure to Provide Authorized Personnel

The State of Colorado has several State statutes, and one regulation specifically pertaining to the assessment and remediation of methamphetamine contaminated properties. The statutes and regulations contain mandatory provisions.

One of the mandatory provisions, pursuant to state regulations promulgated by the Colorado State Board of Health and designated as “6 CCR 1014-3, Regulations Pertaining To The Cleanup Of Methamphetamine Laboratories” states that assessments of properties within the scope of the regulation can only be performed by authorized Industrial Hygienists meeting the definition of Section 24-30-1402 of the Colorado Revised Statutes. According to the regulations, during the assessment, the Industrial Hygienist must perform hypothesis testing wherein:

The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, **trained in aspects of methamphetamine laboratories**, to conclude the presence of methamphetamine, its precursors as related to processing, or waste products.

To our knowledge, the author of the reports, (Mr. James Dennison) has no legitimate knowledge, training or experience in the assessment of methamphetamine laboratories. The documentation provided by Century Environmental Hygiene, LLC (CEH) fails to provide the mandatory statement of Qualifications necessary to demonstrate and document the necessary training and experience.

Nothing within the provided documentation demonstrates that the CEH personnel involved with the assessment work are authorized to perform assessments of clandestine

drug laboratories, pursuant to pertinent regulations. Considering the gross lack of technical competency historically exhibited by the author of the report, one may reasonably conclude that the author has received no training in the same. As discussed below, the author has made many gross technical errors, omissions, and has exhibited a gross lack of technical competency in the realm of clandestine drug laboratory assessment.

FACTs has reviewed several reports^{7,8,9,10,11,12} from CEH and has found that CEH merely “plugs in” the same faulty language over and over in each of its reports regardless of site conditions and regardless of regulatory obligations. In each case, where FACTs has reviewed the work of CEH, FACTs has identified similar language pools and found similar fatal flaws and gross technical incompetence. FACTs has also provided oral courtroom expert witness testimony¹³ in a case involving Mr. Dennison and CEH, wherein our testimony was that CEH failed to understand and follow the rudimentary elements of clandestine drug laboratory assessments, and failed to understand Colorado regulations and statutes regarding clandestine drug laboratories. CEH has, therefore, a long history of performing botched assessments of illegal drug laboratories. The assessment performed by CEH at the subject property similarly contains fatal flaws, and cannot be used as a legitimate Preliminary Assessment, or final report of compliance.

Statements of Qualifications

Section 8.21 of the Colorado Regulations explicitly requires the consultant to provide:

8.21 Consultant statement of qualifications, including professional certification or qualification as an industrial hygienist as defined in section 24-30-1402, C.R.S., and description of experience in assessing contamination associated with methamphetamine labs.

The CEH documentation provided to FACTs included two sections which could be construed as the mandatory Statement of Qualifications for the CEH personnel. However, neither section documented any legitimate training or knowledge specific to clandestine drug laboratories, and neither section documented any experience with regard to assessing contamination associated with methamphetamine labs. Furthermore, as

⁷ 3509 Montrose Street, Evans CO (4/5/06) <http://forensic-applications.com/meth/Initial-review.pdf>

⁸ 1812 164th Place, Thornton CO (4/23/09) <http://forensic-applications.com/meth/164thCriticalReview.pdf>

⁹ Property address sealed by court order (9/23/09)

¹⁰ 24018 Deer Valley Road, Golden, CO (8/25/10) <http://forensic-applications.com/meth/DVRCriticalReview.pdf>

¹¹ Columbine Apartments, Unit A107 605 Wickes Ave. Craig, CO 81625 (12/30/07) <http://forensic-applications.com/meth/columbinepreliminaryassessment.pdf>

¹² 19042 E 53rd Ave., Denver, CO (12/10/08) <http://forensic-applications.com/meth/gollaspa.pdf>

¹³ City of Evans, Colorado vs. Patrice Wayne, Motions Hearing Documentation, April 5, 2006

described below, the information provided in Mr. Dennison report appears to be exaggerated and/or fabricated.

“Brief Bio” of James E. Dennison

Nothing in State regulations require the consultant to provide a “Brief Bio” as part of the mandatory documentation. The language of the State regulations is clear in content and intent. The information provided in the documents authored by CEH fails to document that Mr. Dennison has had any training in clandestine drug laboratories, as required. The information provided in the “Brief Bio” simply states:

Attended meth lab training classes

There is no indication provided in the documentation that Mr. Dennison has attended any such classes. Indeed, given the gross technical incompetence exhibited in the CEH work at the subject property, and the statements made in his “Brief Bio” one would conclude that Mr. Dennison has never actually received any legitimate training in the assessment of clandestine laboratories. For example, in his “Brief Bio,” Mr. Dennison claims that he

Sampled first known phenyl-2-propanone method meth lab

The phenyl-2-propanone method has been in existence since at least 1944,¹⁴ (before Mr. Dennison was even born) and if Mr. Dennison had received any legitimate training in clandestine drug laboratories, he would have been aware of that fact. We believe that the statement is a fabrication intended to mislead the client into thinking that Mr. Dennison has experience beyond his actual knowledge. Since Mr. Dennison has not provided any information regarding the date or location of the P-2-P laboratory, we cannot confirm this claim. However, the assertion that Mr. Dennison was performing sampling at a time when he was not likely to have even been born is patently unupportable.

It is possible Mr. Dennison is referring to a P-2-P laboratory located at 19042 E 53rd Avenue, Denver, Colorado, wherein CEH performed some sampling. However, the site in question was making the drug ecstasy, not methamphetamine. The work performed by CEH at that property was characteristically deficient, not compliant with state regulations, and ultimately the Preliminary Assessment¹⁵ and final clearance sampling was performed by FACTs, Inc. who ultimately issued the Decision Statement¹⁶ to release the property.

¹⁴ Crossley FS, Moore ML, *Studies on the Leuckart reaction*; J Org Chem 9, 5291 (1944)

¹⁵ Preliminary Assessment of an Identified Illegal Drug Laboratory 19042 E 53rd Avenue Denver, Colorado, December 10, 2008

¹⁶ Final Verification Sampling and DECISION STATEMENT of an Identified Illegal Drug Laboratory At: 19042 E 53rd Avenue Denver, Colorado, March 7, 2009

In his “Brief Bio” Mr. Dennison claims that he sampled an apartment building that was subsequently found to be the largest “meth lab” yet found in Colorado. Again, Mr. Dennison provides no information to support the claim. To our knowledge, the largest meth-lab yet discovered was that reported on the front page of the Denver Post¹⁷ at a Day Camp and which comprised of more than 14 structures, over 21,000 square feet of occupiable floor space, included two separate sewerage systems, and covered approximately two acres of land. FACTs performed the Preliminary Assessment¹⁸ and Final Clearing Sampling and Decision Statement for that property.¹⁹

There is nothing in the “Brief Bio” that would satisfy the regulatory requirement that the consultant submit a “...statement of qualifications, including professional certification or qualification as an industrial hygienist as defined in section 24-30-1402, C.R.S., and description of experience in assessing contamination associated with methamphetamine labs.”

As an example of a legitimate Statement of Qualifications, the author of this review (Connell) has included a copy of his Statement of Qualifications in Appendix A of this discussion.

Furthermore, the information as provided is a violation of the Code of Ethics of the American Board of Industrial Hygiene which certifies Mr. Dennison and which requires the ABIH member to:

Provide accurate and truthful representations concerning all certification and recertification information.

Furthermore, the ABIH Code of Ethics requires its membership to:

Recognize the limitations of one’s professional ability and provide services only when qualified. The certificant/candidate is responsible for determining the limits of his/her own professional abilities based on education, knowledge, skills, practice experience and other relevant considerations.

Mr. Dennison has failed to demonstrate or document that he has any legitimate specialized knowledge in clandestine drug laboratories, and, specifically, methamphetamine laboratories.

¹⁷ http://www.denverpost.com/golf/ci_9635055

¹⁸ *Preliminary Assessment of an Identified Illegal Drug Laboratory 618 Park County Road 68, Bailey, Colorado*, July 15, 2008, On file with Tom Eisenman, Park County Development Services Coordinator, Environmental Health and Planning and Zoning, PO Box 1598, Fairplay CO 80440 and available at <http://forensic-applications.com/meth/FarmerPreliminaryAssessment.pdf>

¹⁹ *Final Verification Sampling and DECISION STATEMENT of an Identified Illegal Drug Laboratory 618 Park County Road 68, Bailey, Colorado*, October 7, 2008, On file with Tom Eisenman, Park County Development Services Coordinator, Environmental Health and Planning and Zoning, PO Box 1598, Fairplay CO 80440 and available at <http://forensic-applications.com/meth/FarmerPreliminaryAssessment.pdf>

Finally, in his “Brief Bio” Mr. Dennison makes the misleading and incorrect statement that “All submitted final reports have been accepted by all governing bodies (health departments)” There are two problems with this statement:

1) Mr. Dennison fails to note that pursuant to State Statute, Governing Bodies are required to receive all submitted reports, regardless of proficiency and regardless of content or compliance with regulations. If a ten year old child submitted a one-page document prepared in crayon and submitted the paper as a “Final Report” of an assessment, state statutes require the Governing Body to receive the report. By state statutes, the Governing Body is not required to approve or even read the submitted work; the Governing Body is merely required to receive the final report.

2) Some offices of the Governing Body exercise their statutory authority to review and then accept or reject the consultant’s report. Mr. Dennison’s work has been rejected in the past. For example, the City of Evans, Colorado (*Evans vs Wayne, 2006*) rejected Mr. Dennison’s reports upon review, and, then FACTs was retained by the City to perform the necessary work. The CEH statement, therefore, is patently untrue. FACTs is not aware of any assessment of a clandestine drug laboratory performed by CEH that has ever met with regulatory technical merit and/or met with minimum state statutory or regulatory requirements.

As a side note, “Governing Bodies” is a legal term, and does not, as implied in Mr. Dennison’s report, necessarily imply “health department.”

Failure to Comply With Mandatory Elements of a Preliminary Assessment

According to Colorado State regulation 6 CCR 1014-3, when a Preliminary Assessment is conducted specific elements must be included:

6 CCR 1014-3 4.0 Preliminary Assessment. A preliminary assessment shall be conducted by the consultant, in accordance with section 6.7 of this regulation, prior to the commencement of property decontamination. ... Information collected during the preliminary assessment shall include, but not be limited to, the following:

Failure to comply with 6 CCR 1014-3 Paragraph 4.3

According to State regulations, during the Preliminary Assessment, the Industrial Hygienist shall perform specific duties that determine the potential for contamination migration, establish the grounds for decontamination and prepare the foundation for post clearance sampling by determining functional spaces. The Regulations explicitly require the Industrial Hygienist to provide:

4.3. Identification of structural features that may indicate separate functional spaces, such as attics, false ceilings and crawl spaces, basements, closets, and cabinets.

CEH failed to perform its duties and fulfill regulatory requirements by failing to identify functional spaces within the subject property that may be associated with unique

contamination as required by regulation. Pursuant to this section of the regulations, the Industrial Hygienist is required to consider:

According to State regulations 6 CCR 1014-3 (Section 3)

“Functional space” means a space where the spread of contamination may be expected to occur relatively homogeneously, compared to other functional spaces. The “functional space” may be a single room or a group of rooms, designated by a consultant who, based on professional judgment, considers the space to be separate from adjoining areas with respect to contaminant migration. Other typical examples of functional spaces include a crawl space, an attic, and the space between a dropped ceiling and the floor or roof deck above.

In its report, CEH failed to perform the regulatory mandated identification of structural features that may indicate separate functional spaces. Instead, CEH ignored the regulatory requirements and merely stated:

4.1. Description of Functional Spaces: The following separate functional spaces were identified: garage, shed, crawl space, attic, HVAC, and rest of house.

The establishment of Functional Spaces is absolutely integral to the utility of the Preliminary Assessment. Without the assessment and identification of the Functional Spaces, decontamination cannot properly occur, and without the identification of the Functional spaces, final clearance sampling cannot occur since State regulations require the clearance sampling to be based on those Functional Spaces that have been identified in the Preliminary Assessment.

As described later, had CEH performed its regulatory obligations, it would have identified at least the following ten functional spaces. Based on our very brief visit FACTs identified the following Functional Spaces

- Addition on the west
- Attic
- Bathroom
- Crawlspace
- East bedroom
- Garage
- Kitchen
- Living room
- Shed
- West bedroom

Failure to comply with 6 CCR 1014-3 Paragraph 4.4

According to State regulations, during the Preliminary Assessment, the Industrial Hygienist shall identify the manufacturing process used on site. The information is imperative and indispensable during the Preliminary Assessment, since the

decontamination efforts may be incumbent on the type of process used. Furthermore, the post decontamination sampling shall be incumbent on the type of process used. The state regulations explicitly require the Industrial Hygienist to:

4.4. Identification of manufacturing methods based on observations and law enforcement reports.

Since there is no documentation that CEH actually performed any inspection of the property, as evidenced by its failure to identify functional spaces, CEH could not have complied with this provision. Similarly, since CEH failed to demonstrate any documentable knowledge of manufacturing processes (and has an history of providing erroneous technical information), there is no reason to expect CEH to have sufficient competency in recognizing, or knowing the significance or having the ability of discerning which method may have been used.

State Regulations explicitly require the following:

7.3. If the preliminary assessment indicates the phenyl-2-propanone (P2P) method of methamphetamine manufacturing was used, surface wipe samples for lead shall not exceed a concentration of 40 µg /ft², and vapor samples for mercury shall not exceed a concentration of 1.0 µg /m³.

Since there is no documentation that would indicate that CEH actually inspected the house, or has any legitimate training in assessing illegal drug laboratories, it is reasonable to conclude that if such evidence was present, it would not have been documented.

In fact, during our March 8, 2011 assessment, FACTs identified several areas with patently obvious indicia regarding manufacturing and processing. Indeed, during our cursory evaluation, FACTs took several photos of indicators that, to the trained eye, spoke to the processes occurring in the property.

Failure to comply with 6 CCR 1014-3 Paragraph 4.5

According to State Regulations, during the Preliminary Assessment, the Industrial Hygienist is required to perform specific duties including:

4.5. Identification of chemicals used, based on observations, law enforcement reports, and knowledge of manufacturing method(s).

CEH entirely failed to perform its professional, regulatory obligations and duties and failed to fulfill this regulatory requirement by failing to identify the chemicals that may have been present. Although CEH speculates that an anhydrous method or “Red Phosphorous” method may have been used, CEH failed to explain how the chemicals used in these methods could have impacted the property or how those compounds and chemicals were assessed.

Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Bias Sampling

According to State Regulations, during the Preliminary Assessment, the Industrial Hygienist is required to perform specific duties including:

4.6 Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination. If the consultant determines that assessment sampling is necessary, such sampling shall be conducted in accordance with the sampling protocols presented in Appendices A and D. Sample analysis shall be conducted in accordance with the method requirements presented in Appendices B and D.

CEH failed to perform its duties and fulfill regulatory requirements by failing to collect samples pursuant to Appendix A.

In its report, CEH states:

Sample locations were generally selected in a more or less random manner.

Furthermore, in its report, CEH also states:

Due to inherent variability in the contamination level from one location to another location, there are locations with higher and lower levels than are indicated by the samples. Some locations could exceed the Cleanup Level even when the structure as a whole complies with the Cleanup Level as indicated by data available. However, a reasonable effort was made to collect samples from random locations, which supports the idea that the samples provide a representative indication of meth levels, i.e., “average” meth levels.

However, if CEH had been familiar with Colorado’s Regulations, CEH would have known that Appendix A of Colorado’s regulations state:

Biased Sampling

Biased sampling is the type of authoritative sampling that intends **not to estimate average concentrations** or typical properties, but to estimate “worst” or “best” cases (as described in ASTM Method D6051-96 (2001), Standard Guide for Composite Sampling and Field Subsampling for Environmental Waste Management Activities. As described later in this protocol, the aim of the consultant performing post-decontamination sampling is to demonstrate the worst-case scenario in the drug laboratory. The term “biased,” as used here, refers to the collection of samples with expected high concentrations. For example, a sample taken at the source of the actual “cook,” known release, spill or storage area could serve as an estimate of the “worst-case” concentration found in the functional space.

The Colorado regulations continue with:

Sampling Theory

The type of sampling used for stationary structures and vehicles described in this protocol is a type of sampling recognized as “authoritative” sampling. Authoritative sampling is a nonstatistical sampling design that **does not** assign an equal probability of being sampled to all portions of the population. Consultants using this protocol will have *a priori* knowledge of the property to be sampled. The *a priori* knowledge, in the hands of a competent consultant, permits immediate inclusion/exclusion of sampling areas, based on professional judgment. As such, the weight of validity of the data gathered with authoritative sampling is largely dependent on the knowledge and competency of the sampler.

CEH has exhibited gross technical incompetency in understanding Colorado’s methlab regulations, and that technical incompetence translated into gross errors and omissions during their work at the subject property.

Failure to comply with 6 CCR 1014-3 Paragraph 4.6 – Prohibited Surfaces

According to State Regulations, during the Preliminary Assessment, the Industrial Hygienist is required to perform specific duties including:

4.6 Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination. If the consultant determines that assessment sampling is necessary, such sampling shall be conducted in accordance with the sampling protocols presented in Appendices A and D. Sample analysis shall be conducted in accordance with the method requirements presented in Appendices B and D.

CEH failed to perform its duties and fulfill regulatory requirements by failing to collect samples pursuant to Appendix A.

Appendix A Colorado

Porous Surfaces - Vacuum Sampling

Vacuum sampling shall be used to determine the extent of contamination on porous surfaces, including carpeting, drapery, upholstery, clothing, and other soft goods.

In their report, CEH falsely states:

Samples were collected from non-porous surfaces by marking an area of 100 cm² with a pre-cut template.

However, in their report, CEH clearly documents that Samples 040811JD-02, 040811JD-03 and 040811JD-09 were, in fact, collected from porous surfaces .

Failure to comply with 6 CCR 1014-3 Paragraph 4.10

According to State Regulations, during the Preliminary Assessment, the Industrial Hygienist is required to perform specific duties including providing:

4.10 Identification and documentation of signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation.

In their report, CEH merely plugged in the same language it seems to use in all its reports regardless of site conditions,. CEH stated:

Distressed vegetation was not observed outside the house.

Yet in its report, CEH has provided photographs, that clearly exhibit stressed vegetation. Since CEH has no documented training in the assessment of illegal drug laboratories there is no reason to believe that even if CEH had properly inspected the outdoors, they would have possessed sufficient knowledge to determine signs of contamination.

In fact, during our cursory assessment, FACTs visually identified several signs of contamination at the structure. Indeed, there were so many visual clues, we initially informed our client that sampling was not necessary to conclude the property had a very high probability of contamination.

Failure to comply with 6 CCR 1014-3 Paragraph 4.11

According to State Regulations, during the Preliminary Assessment, the Industrial Hygienist is required to perform specific duties including:

4.11. Inspection of plumbing system integrity and identification and documentation of potential disposal into the sanitary sewer or an individual sewage disposal system (ISDS). ... *et seq.*

CEH entirely failed to perform its obligatory duties and instead stated:

A plumber should inspect the plumbing system to verify integrity.

Ignoring for a moment that it would be unlawful for a plumber to enter the property and perform the assessment, CEH so poorly understands it's professional obligations and responsibilities that it fails to recognized that they (CEH) is required by regulation to assess the plumbing.

The above statement, found in the CEH report, regularly appears in all CEH methlab assessments we have seen as part of their standard boiler-plate reports regardless of site conditions. In fact, CEH was required by State regulation to have performed the inspection. The inspection is not only a mandatory requirement, it is also normal standard industry practice. It is difficult to understand how on the one hand, CEH could accept the professional obligation to perform a Preliminary Assessment, (which explicitly requires an inspection of the plumbing integrity), and at the same time claim that the work was somebody else's responsibility.

Failure to comply with 6 CCR 1014-3 Paragraph 4.13

During the Preliminary Assessment, the Industrial Hygienist is required to provide:

Photographic documentation of property conditions, including cooking areas, chemical storage areas, waste disposal areas, and areas of obvious contamination.

CEH failed to meet this responsibility by failing to provide photographs of the site conditions. Functional spaces are not represented, and the report mainly contains a few close-up of sampling templates.

Failure to comply with 6 CCR 1014-3 Paragraph 6.0

See the discussion above addressed under 6 CCR 1014-3 Paragraph 4.6 – Bias Sampling and Prohibited Surfaces.

Failure to comply with 6 CCR 1014-3 Section 6.1.1

State regulations require that samples shall be collected from:

6.1.1. Areas expected to have the highest levels of contamination, such as cooking areas, chemical storage areas, and waste disposal areas

In fact, CEH is so entirely unfamiliar with clandestine drug lab assessment protocols, and clandestine drug labs in general, and certainly the regulations, CEH failed to realize that the locations of the documented samples were not collected from areas that would have represented the highest potential concentrations, but in fact, have some of the lowest probabilities.

An astute and unethical consultant, through “more or less random sampling” can falsely bias results low. In this case, for example, if we compare the results of the samples collected from CEH, to those collected by FACTs at the property, we see that CEH either is intentionally biasing the results low, or lacks the technical competency to perform the sampling in the first place.

In the samples collected by CEH from the living room return vent, from the garage and from the attic, we see that CEH reported a cumulative area-integrated methamphetamine concentration of 28.8 micrograms of methamphetamine per 100 square centimeters (28.8 $\mu\text{g}/100\text{cm}^2$).

For the same samples, FACTs’ cumulative area-integrated methamphetamine concentration was 131 $\mu\text{g}/100\text{cm}^2$ – or five times higher.

Similarly, in the samples collected by CEH from the living room, east bedroom, bathroom, west bedroom and kitchen, CEH reported a cumulative area-integrated methamphetamine concentration of only 15.5 $\mu\text{g}/100\text{cm}^2$. For the same areas, FACTs found more than ten times higher concentrations; 159.9 $\mu\text{g}/100\text{cm}^2$. As such, a poorly trained consultant who fails to understand their regulatory and professional obligations in performing sampling, fails to properly direct decontamination efforts.

In this manner, an unscrupulous and/or incompetent consultant can “clear” an heavily contaminated property, and therefore, we will return to this issue in the section that discusses final clearance verification sampling.

Failure to comply with 6 CCR 1014-3 Section 6.6

State regulations require that:

Quality Control/Quality Assurance (QA/QC) samples, including sample blanks, field duplicates, matrix spike and matrix spike duplicates, shall be collected and/or analyzed as specified in the sampling and analysis protocols presented in Appendices A, B and D of these regulations.

Similarly, Appendix A, being referenced above states:

10. At least one sample media blank, treated in the same fashion but without wiping, should be submitted for every 10 samples collected.

Therefore, since CEH collected 11 samples, mandatory compliance QA/QC would have included at least two blanks. In violation of Appendix A, CEH only submitted one blank. Although the failure to submit blanks is not a fatal flaw, we see that the same error has been repeated over and over again in CEH reports, and therefore, this indicates a lack or competency on the part of CEH.

DECONTAMINATION

According to State regulations, decontamination is to be based on the Preliminary Assessment. However, the CEH document did not provide any guidance on how decontamination was to be conducted.

Furthermore, the State of Colorado regulations require the decontamination to occur in a specific manner, and prohibit certain activities.

Based on the information provided to us, the remediation at the Hooker Street property was not performed pursuant to regulations, and prohibited activities were deployed.

To some extent, the Industrial Hygienist performing the Preliminary Assessment bears some responsibility for the manner in which decontamination is to occur, since it is their responsibility to determine what is present, why, how much and how it is to be corrected. Where, such as in this case, the IH fails to provide the proper guidance, the remediator is somewhat at a loss as to how to proceed.

However, at all times, the remediator is responsible for any and all of any of their actions which constitute violations of State regulations.

Decontamination Executive Summary

Based on the totality of circumstances, FACTs has identified that, at a minimum, the remediation contractor failed to comply with the following provisions of mandatory Colorado Regulations:

- Failure to Comply With Section 4.0
- Failure to Comply With Paragraph 5.2
- Failure to Comply With Paragraph §5.3
- Failure to Comply With Paragraph §5.4

Failure to Comply With Section 4.0

According to Colorado Regulations 6 CCR 1014-3, Section 4.0:

Preliminary Assessment. A preliminary assessment shall be conducted by the consultant, in accordance with section 6.7 of this regulation, prior to the commencement of property decontamination. Information gained during the preliminary assessment shall be the basis for property decontamination and clearance sampling.

Since no legitimate Preliminary Assessment was performed for this property, any attempts to clean the property were unlawful to the extent that the cleanup must be based on the Preliminary Assessment.

Failure to Comply With Paragraph 5.2

According to Colorado Regulations 6 CCR 1014-3, Section 5.0, Paragraph 5.2:

5.2 Detergent water washing of non-porous, porous and semi porous surfaces that are contaminated, or that are reasonably expected to be contaminated, that will not be removed.

Based on our observations, Paragraph 5.2 was not followed. Upon our arrival on November 3, 2011 FACTs observed first hand that openly exposed horizontal surfaces had not be wiped, or cleaned in any manner.

In the documentation provided by the remediation company, BIO-CLEAN, all surfaces where to have been vacuumed with an HEPA vacuum. However, even the slightest of cursory visual inspections would lead a competent consultant to conclude that if surfaces had in fact been vacuumed with an HEPA vacuum, those surfaces would not contain profoundly heavy deposits of historical dust. During our November 3, 2011 visit, FACTs observed profoundly heavy deposits of historical dust and dirt on openly exposed surfaces throughout the property.

Remarkably, in their documentation BIO-CLEAN actually documents how they violated State regulations.

In the documentation BIO-CLEAN states:

6-20-2011

Packed out tools and equipment and readied for chemical spraying.

BIO-CLEAN further states:

6-22-2011

The property was sprayed with “Crystal Clean” an EPA registered cleaner for methamphetamine, and allowed to react with the methamphetamine and dry over the weekend.

6-23-2011

All of the surfaces inside the property were then washed with degreaser to remove the residue of the foam produced by the “Crystal Clean”, finished with a clear water rinse and wipe down of all surfaces. Jim Dennison the IH was notified that the property was ready for clearance testing.

During our November 3, 2011 assessment, as documented in the news reporter’s video of our work, large areas within the structure were merely sprayed with an oxidizer, “Crystal Clean,” and allowed to remain as an heavy encapsulating layer on the surfaces.

According to an article written by Coleen Brisnehan with the Colorado Department of Public Health and Environment no later than August 2007, Ms. Brisnehan makes the following statements:²⁰

I was recently approached by a man touting a “miracle” product for methamphetamine (meth) lab cleanup, claiming that it could “neutralize the DNA in meth.” After regaining my composure, I tried to explain to the man that meth did not have DNA, and even if this compound could alter the chemical structure of meth, **its use would not comply with the requirements of the Colorado cleanup regulations.** This is due to the fact that this chemical is designed to be applied using a “fogger.” This and similar products, that are intended to be applied and left on surfaces, **do not qualify as a “detergent water wash” required by the regulations (6 CCR 1014-3, §5.2).**

Ms. Brisnehan goes on to discuss generally how the use of such products, and especially when those products contain hydrogen peroxide and are permitted to remain on surfaces are not permitted by Colorado Regulation.

Based on our November 3, 2011 assessment, throughout the structure, there was a thick layer of white encapsulant that had been sprayed directly over profound historical settled dust which was permitted to remain. The documentation provided by BIO-CLEAN specifically identifies the material as a product that contain upwards to 8% hydrogen peroxide.

²⁰ Colleen Brisnehan, Colorado Department of Public Health and Environment: *Silver Bullet or Snake Oil?*

If, as claimed, “*All of the surfaces inside the property were then washed with degreaser to remove the residue of the foam produced by the “Crystal Clean”, finished with a clear water rinse and wipe down of all surfaces.*” then FACTs would not have observed heavy profound layers of settled dust covered with a white encapsulant throughout the structure.

Failure to Comply With Paragraph §5.3

State Regulations require removal of all contaminated material that will not or cannot be decontaminated to specified cleanup levels.

5.3. Removal of all contaminated material that will not or cannot be decontaminated to cleanup levels specified in Section 7.0 of the regulation. Removal of all contaminated materials if sampling cannot demonstrate that cleanup levels have been met. *et seq.*

In this case, it would have been extremely difficult to properly collect a sample through the heavy encapsulant. Indeed, during our visit, we encountered such a difficulty wherein the residual encapsulant was so thick on some surfaces, that it interfered with the collection of our samples from those surfaces.

Furthermore, in her article, Ms. Brisnehan accurately observed the following:

Beyond the regulatory requirements, there is a fundamental problem with the use of these “miracle” products. At properties where meth has been manufactured, meth is not the only chemical of concern. However, due to the cost and technical challenges of testing for multiple chemicals of concern, sampling is generally limited to meth. In post-cleanup confirmation sampling, meth is used as an indicator chemical to demonstrate that a cleanup was conducted properly. Any process that alters the chemical structure of meth, eliminates this indicator and thus the ability to evaluate the effectiveness of cleanup. In addition, there is still the unanswered question of what exactly happens to meth when it comes in contact with one of these chemicals. If meth is chemically altered, what are the resulting byproducts, and are they of concern?

Based on the totality of circumstances, including the available documentation and our first hand observations, contaminated materials were simply sprayed in situ and left in place without any cleaning, thus exposing the new occupants to those contaminants.

Failure to Comply With Paragraph §5.4

Encapsulating surfaces prior to final clearance sampling is prohibited.

5.4. Encapsulation of porous and semi porous surfaces may be conducted after detergent water washing and after clearance sampling has demonstrated that cleanup levels have been achieved.

In this case, in violation of regulation, and as described above, FACTs observed that heavy, profound layers of settled dust had been heavily “locked-down” with an encapsulant material. The documentation provided to us stated that the encapsulant material was deployed prior to the date of the collection of the (otherwise invalid) final clearance samples.

POST DECONTAMINATION ACTIVITIES

EXECUTIVE SUMMARY

- None of the sampling performed by CEH and presented as post verification sampling are valid.
- None of the post remediation samples collected by CEH were collected in a manner that was consistent with State regulations.
- CEH failed to collect a sufficient number of samples from the property as required by regulation.
- CEH failed to obtain the minimum surface areas from functional spaces as required.
- CEH failed to test the mandatory compliance hypothesis as required by regulation.
- CEH collected samples from surfaces that are prohibited by regulation.
- Overall, FACT identified the following regulatory violations, errors and omissions:
 - Failure to Provide Authorized Personnel
 - Failure to Comply with Appendix A - Sampling Theory
 - Failure to comply with 6 CCR 1014-3 6.0.3
 - Failure to comply with 6 CCR 1014-3 6.1
 - Failure to comply with 6 CCR 1014-3 6.1.1.
 - Failure to comply with 6 CCR 1014-3 6.1.2.
 - Failure to Comply with Appendix A – Prohibited Surfaces
 - Failure to Comply with Appendix A – Insufficient Surface Areas
 - Failure to Collect Samples from Mandatory Locations
 - Failure to comply with 6 CCR 1014-3 7.0
 - Failure to comply with 6 CCR 1014-3 7.1
 - Failure to comply with 6 CCR 1014-3 8.0
 - Failure to comply with 6 CCR 1014-3 8.7
 - Failure to comply with 6 CCR 1014-3 8.8
 - Failure to comply with 6 CCR 1014-3 8.20
 - Failure to comply with 6 CCR 1014-3 8.21
 - Failure to comply with 6 CCR 1014-3 8.22
 - Failure to comply with 6 CCR 1014-3 8.23
 - Possible Violation of CRS §18-5-114

Additionally, we have identified several violations of the AIHA Professional Code of Ethics:

- Violation of AIHA (I)(A)(1)
- Violation of AIHA (I)(A)(5)
- Violation of AIHA (II)(A)(1)
- Violation of AIHA (II)(A)(2)
- Violation of AIHA (II)(A)(3)
- Violation of AIHA (II)(A)(5)

- Violation of AIHA (II)(A)(6)
- Violation of AIHA (II)(C)(1)
- Violation of AIHA (II)(C)(2)

Discussion of Post Remediation Activities

Following a remediation, an authorized Industrial Hygienist (trained in the aspects of clandestine drug laboratory assessments) is required by regulation to collect a specific number of samples, of a specific size from specific locations. If a Functional Space fails, that area is necessarily, by regulation, isolated and recleaned by the contractor.

According to regulation, if a Functional Space is not isolated, and is recleaned following a failed sample, all Functional Spaces contiguous with that area must also be re-sampled. This is because the act of re-cleaning that area can re-contaminate all other areas within the negative pressure containment.

For this property, invalid “verification sampling” was performed on three occasions and the contractor returned to the structure to perform re-cleaning following failed samples. However, there is no indication that the failed areas were in fact isolated, but rather, the failed areas appeared to have been simply reentered and sprayed with a magic (but otherwise prohibited) solution which was then allowed to remain on surfaces.

At no time, did any of the verification sampling conform to State requirements.

Like the Preliminary Assessment, the elements of the post decontamination activities are mandated by State regulation. CEH failed to meet the necessary elements of the final activities, and as such, post remediation verification sampling in the property:

- has not been performed
- did not utilize trained personnel
- failed to demonstrate that levels of methamphetamine in the property were compliant
- did not conform to State regulatory requirements
- is fatally flawed and is invalid

Failure to Comply with Appendix A Sampling Theory

According to Colorado regulations:

*In post-decontamination sampling, the hypothesis is made that the area is non-compliant, and data is collected to test the hypothesis. The role of the consultant in post decontamination sampling is **not** to demonstrate that the area is “clean,” but rather, using biased sampling, to diligently attempt to prove that the area is not clean. The lack of data supporting the hypothesis leads the consultant to accept the null hypothesis and conclude that the area is compliant.*

Pursuant to this requirement, CEH was obligated to diligently attempt to “prove” that the remediation was not successful. CEH entirely failed to comply with mandatory

hypothesis testing. By intentionally collecting samples from prohibited surfaces, and surfaces that would be expected to have the lowest levels of contamination in an otherwise contaminated property, CEH failed to perform its regulatory duty.

Furthermore, according to State regulations:

Decision Statement

If, based on the totality of the circumstances, the consultant finds that insufficient evidence exists to support the hypothesis that any given area is non-compliant, that area shall be deemed to be compliant with section 25-18.5-103 (2), C.R.S., and shall be released. If objective sampling data indicates contamination is less than the cleanup level, that data may be used as prima facie evidence that insufficient evidence exists to support the hypothesis that any given area is non-compliant.

Upon entering the property on November 3, 2011, FACTs observed that the conditions in the structure had been heavily modified as a result of renovation activities by the new occupants. And yet, in spite of the disturbed condition of the structure, visual clues of noncompliance were patently obvious throughout the structure.

Under these circumstances, a legitimate Industrial Hygienist, properly trained in the assessment of clandestine drug laboratories, and properly trained in the regulatory requirements for the State of Colorado would not have collected ANY samples from the property since there was sufficient visual evidence to challenge the primary hypothesis of noncompliance.

The fact that CEH overlooked glaring and obvious visual indicators of noncompliance and collected samples further underscores the incompetence of CEH. However, since CEH has been made aware of these deficiencies on multiple occasions in the past, and was therefore aware of these deficient practices, one must conclude that CEH willfully ignored and violated State regulations in the performance of their duties.

Failure to comply with 6 CCR 1014-3 6.0.3

According to State Regulations,

Post-decontamination clearance sampling **shall** be conducted to verify that cleanup standards have been met. Sample collection and laboratory analysis **shall** be conducted in accordance with the procedures set forth in Appendices A, B and D of these regulations.

As described below, CEH entirely failed to comply with State regulations, and falsely “cleared” an otherwise contaminated property, thus potentially exposing the newly entering occupants and their children to a potentially hazardous environment.

Failure to comply with 6 CCR 1014-3 6.1

State regulations explicitly require:

6.1. Locations of samples shall be based on information gathered during the preliminary

assessment. ...

As described above, no legitimate Preliminary Assessment was performed for this property. Particularly, CEH failed to identify Functional Spaces and also failed to identify or even address the possibility of other compounds that may have been present.

Failure to comply with 6 CCR 1014-3 6.1

State regulations explicitly require:

6.1. ... Samples **shall** be collected from:

This language specifically indicates that the sample collection in the following sections is not elective, but rather is mandatory. As will be demonstrated, CEH failed to meet the following requirements.

Failure to comply with 6 CCR 1014-3 6.1.1.

Colorado Regulations explicitly require the consultant to collect samples from

6.1.1. Areas expected to have the highest levels of contamination, such as cooking areas, chemical storage areas, and waste disposal areas.

In this case, CEH failed to collect samples as required and, according to CEH,

Sample locations were generally selected in a more or less random manner.

There is no known sampling theory known as “the-more-or-less-random-sampling-manner-method.” Essentially CEH, contrary to the requirements of State regulation, simply invented its own rules, and failed “...*using biased sampling, to diligently attempt to prove that the area is not clean.*” Instead, by using “...*a more or less random manner...*” approach and by collecting samples from prohibited surfaces, CEH diligently attempted to circumvent the regulations.

On November 3, 2011, at the request of the confidential client, and with the consent of the occupant, FACTs entered the property and performed spot sampling. Since the sampling was not regulatory sampling, FACTs was not required to follow the mandatory sections found in regulation.

During our investigation, FACTs collected samples pursuant to judgmental authoritative bias sampling principles. FACTs collected five samples from surfaces in the property and submitted the samples to the same laboratory used by CEH. The table below presents the results of the sampling.

Sample ID	Location	Surface Area (cm ²)	Result (µg/100cm ²)	Status
M110311-01	Living room thermostat	158	4.31	FAIL
M110311-02	Field Blank	NA	BDL	NA
M110311-03	Alarm control box in hallway	253	1.38	FAIL
M110311-04	Spike (3 µg)	NA	3.00	NA
M110311-05	Attic - electrical wire above kitchen	161	6.08	FAIL
M110311-06	Garage top door rail	120	0.01	FLAGGED
M110311-07	Crawlspace - iron pipe in s crawlspace	180	0.28	FLAGGED

Table 1
Results of Spot Wipe Verification Samples

The samples in the above table have been corrected for recovery. However, in this case, even if the samples had not been corrected for recovery, the noncompliant concentrations in the home were so elevated that they would have similarly been profoundly elevated if no such correction occurred.

The sample collected from the thermostat in the Living room was profoundly in excess of the regulatory limit.

The field blank, which was submitted blindly to the analyzing laboratory, demonstrated that neither the materials used by FACTs nor the handling procedures contaminated the samples.

The alarm box sample from the central hallway was profoundly in excess of the regulatory limit.

The spike sample is prepared by an independent laboratory not associated with FACTs, and not associated with the analyzing laboratory. FACTs hires the independent laboratory to supply samples to which precise and known amounts of methamphetamine have been added. The “samples” are then submitted to the analyzing laboratory to confirm the analyzing laboratory is capable of recovering the known amount of methamphetamine that has been added to the sample. In this case, the analyzing laboratory successfully recovered 83% of the added methamphetamine. Therefore, the spike and the actual samples are corrected to the spike recovery.

The attic sample indicated profoundly elevated concentrations of noncompliant methamphetamine in the attic. Like the spike corrections, due to extremely dirty conditions, it can be impossible to properly wipe the surface, since the heavy deposits of surface debris cannot always be completely collected on the wipe. Following standard industrial hygiene practices, the remaining debris is visually estimated as a percentage of original material, and the final result is corrected to accommodate for the material remaining on the surface. (Under normal circumstances, a legitimate Industrial Hygienist would not “verify” decontamination based on the visual assessment alone, thus avoiding

the problem.) In this case, since the levels of methamphetamine were so elevated, even if the samples were not corrected for under sampling, they would still have been noncompliant.

FACTs attempted to collect a sample from the garage. However, unfortunately, on the day of our visit, access to the garage was greatly restricted by furniture and other chattels in the garage from the moving-in process. Therefore, FACTs was forced to select an area immediately inside the north door. Unfortunately, these surfaces had very heavy deposits of encapsulating materials that prevented the collection of a proper sample. Therefore, the samples have been “flagged” - meaning their utility is questionable. As discussed in this report, the use of encapsulants in this fashion is prohibited by regulation.

FACTs observed that the crawlspace, similar to the garage, had simply been sprayed with a chemical encapsulant and had not been wiped or otherwise cleaned as required by regulation. Therefore, similar to the garage sample, this sample was flagged, since we were unable to properly collect a sample from the surface.

The samples collected by FACTs confirm that no legitimate decontamination efforts were deployed in the structure.

The samples confirm that the “final” sampling performed by CEH was invalid, performed in violation of State regulations, and grossly incapable of characterizing the conditions in the property.

Failure to comply with 6 CCR 1014-3 6.1.2.

According to State regulations, samples must be collected from

6.1.2. Areas where contamination may have migrated, such as adjacent rooms or units, common areas, and ventilation systems.

According to the documentation provided to FACTs, on June 23, 2011, CEH informed the contractor that the attic space “failed.” (In fact the sample used was an invalid sample collected from a porous surface in violation of State regulations). The contractor notes in its documentation that on July 5, 2011:

Attic space was sprayed again with “Crystal Clean”.

If indeed, the verification sampling demonstrated that the attic had failed and required additional attention, that area should have been isolated to prevent the migration of contamination; then re-cleaned and re-tested. However, that was not done, and apparently the attic was not isolated. Therefore, and contamination that was disturbed during this re-cleaning would not have been contained and may have migrated throughout the structure, where it would have re-contaminated occupiable surfaces.

Therefore ALL of the sampling, including the samples that had supposedly been used to confirm compliance were no longer valid, and each functional space into which

methamphetamine contamination could have migrated would need to be sampled to satisfy regulations.

Instead of re-sampling the necessary areas, CEH collected additional samples in a “more or less random manner.”

Failure to Comply with Appendix A – Prohibited Surfaces

According to the Mandatory Appendix A of the State regulations:

Wipe sampling shall **not** be used to demonstrate that cleanup levels have been met on porous surfaces.

During sampling, the result of the sample is incumbent on several factors including the effectiveness of the wipe to remove the analyte in question.

Therefore, if a contaminant is equally distributed on a variety of surfaces, all things being equal, lower recoveries will be seen if wipe samples are collected from porous and rough surfaces. It is for this reason, (and others), the State prohibits the collection of final verification samples from porous surfaces.

However, in violation of State regulations, the collection of verification samples from porous surfaces is precisely what CEH did.

According to their report, CEH falsely states:

Samples were collected from non-porous surfaces by marking an area of 100 cm² with a pre-cut template.

However, in their report, CEH then documents the following samples were collected from porous materials:

Sample 18- Living room, floor, center (6/24/11)
Sample 22- Attic, cross beam, middle of attic (6/24/11)
Sample 23- Garage, roof deck, south side, above window (6/24/11)
Sample 24- Crawl space, beam over first post to the north (6/24/11)
Sample 01- Attic, roof deck, northwest corner (7/15/11)
Sample 01- South end of house, on ceiling (8/1/11)

Therefore, none of these samples can be used for final verification. Importantly, CEH attempted to clear the attic, the garage and the crawlspace exclusively through the use of wipe samples from porous surfaces.

Failure to Comply with Appendix A – Insufficient Surface Areas

According to State regulations:

For any given functional space, at least 500 cm² of surface shall be sampled, unless the area is assumed to be non-compliant.

In this case, CEH ignored the requirement to assign Functional Spaces (an omission common to CEH on all other meth-lab assessments we have seen performed by this consultant), and merely identified the whole house as a single functional space. In so doing, CEH eliminates the regulatory need to perform appropriate sampling to ensure public safety and to ensure that the property has been appropriately decontaminated. By ignoring the mandatory regulatory requirement for establishing functional spaces, CEH can appear to clear a property that may otherwise be contaminated by significantly increasing the acceptability of a false negative response for the property as a whole.

That is, as one takes fewer and fewer samples from the property, the probability of finding a non-compliant sample in a contaminated property goes down, and therefore, the probability of clearing an otherwise contaminated structure goes up.

In this way, CEH circumvents the regulations and eliminates his regulatory burden by violating State regulations under the guise of “professional judgment.” Such an approach might, in some circumstances, be valid, if the technique was performed for an articulable reason by a legitimate trained professional.

For example, in a small hotel room, with a separate bathroom, a legitimate Industrial Hygienist, based on a careful review of law enforcement documents and a thorough site investigation may conclude that the guest bedroom and the bathroom may constitute a single Functional Space.

However CEH has identified the “whole house” as a single functional space on this property (and on every other property for which CEH has prepared a “Preliminary Assessments” and as reviewed by FACTs). CEH routinely identifies whole houses as a single functional space, regardless of the size topography or specific site conditions. CEH has offered no articulable rationale for ignoring State regulations in its current report or for identifying an entire four level convoluted structure as a single functional space. Since CEH has not demonstrated any legitimate foundation for expertise in the area practiced, they cannot base the decision on an argument of “professional judgment.”

FACTs is aware that Mr. Dennison has, in the past, been fined by a regulatory agency for circumventing mandatory sampling requirements.

Consultant experience and training lies at the heart of Compliance Sampling to demonstrate compliance with 6 CCR 1014-3. The consultant is required, by state regulation, to collect very specific samples from very specific locations that represent the highest possible contaminant concentrations. If the consultant, such as in this case, has no known or documentable training or knowledge in clandestine drug lab assessments and no documentable training or knowledge of the State regulations, they cannot conceivably perform the sampling in a manner that meets State requirements.

In the table below, we have reproduced the sampling data from the CEH report, using their data:

Sample Location	Functional Space	Area of Sample Collected (cm ²)	Required for regulatory compliance (cm ²)
Addition	1	100	500
Attic	2	0	500
Bathroom	3	100	500
Crawlspace	4	0	500
Northeast bedroom	5	100	500
Garage	6	0	500
Kitchen	7	200	500
Living Room	8	0	500
Northwest bedroom	10	100	500

Table 2
Table of Initial Final Sampling

In the above table we have eliminated the invalid samples collected from prohibited surfaces discussed above. We see that at no time did CEH collect the mandatory 500 square centimeters from ANY of the functional spaces as required.

Failure to Collect Samples from Mandatory Locations

Therefore,

- CEH failed to collect samples from mandatory locations
- CEH failed to collect the minimum required surface area for each sample
- CEH collected samples from prohibited areas

Failure to comply with 6 CCR 1014-3 7.0

State regulations require:

7.0 Cleanup Levels. The following cleanup levels shall be used to determine if a property has been adequately decontaminated. They may also be used during the preliminary assessment to demonstrate that a property, or portion of a property, is not contaminated. All properties must meet the cleanup level for methamphetamine. Additional cleanup levels that may be applied to a property shall be based on information gained during the preliminary assessment.

Failure to comply with 6 CCR 1014-3 7.1

State regulations state:

7.1. Surface wipe samples and vacuum samples for methamphetamine shall not exceed a concentration of 0.5 µg /100 cm².

Failure to comply with 6 CCR 1014-3 8.0 Reporting

According to Colorado State regulations:

A final report shall be prepared by the consultant to document the decontamination process and demonstrate that the property has been decontaminated to the cleanup levels listed in Section 7.0 of these regulations. The final report shall include, but not be limited to, the following:

Sampling performed by FACTs conclusively demonstrated that legitimate decontamination efforts were not employed in the property, and elevated levels of contamination continue to exist in the structure in violation of State regulations.

As demonstrated in the following discussion, CEH failed to comply with the mandatory requirements set for in this paragraph.

Failure to comply with 6 CCR 1014-3 8.7

According to the State regulations the final documentation is required to contain:

8.7. A description of areas with signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation, with a figure documenting location(s).

Photographs taken by CEH on April 13, 2011 clearly indicated areas of stressed vegetation. No further information on these areas or how they were addressed is provided as required.

Failure to comply with 6 CCR 1014-3 8.8. Plumbing

According to the State regulations the final documentation is required to contain:

8.8. The results of inspection of plumbing system integrity and identification of sewage disposal mechanism.

CEH entirely failed to address plumbing in any of their documentation except by shrugging the responsibility by stating:

A plumber should inspect the plumbing system to verify integrity.

Failure to comply with 6 CCR 1014-3 8.20.

According to the State regulations the final documentation is required to contain:

8.20 Photographic documentation of pre- and post-decontamination property conditions, including cooking areas, chemical storage areas, waste disposal areas, areas of obvious contamination, sampling and decontamination procedures, and post-decontamination conditions.

CEH failed to provide any photographic documentation of the post-decontamination conditions and instead provided 11 close-up photos of sampling templates and one close up photograph of the pad where a shed apparently stood.

Failure to comply with 6 CCR 1014-3 8.21

According to the State regulations the final documentation is required to contain:

8.21. Consultant statement of qualifications, including professional certification or qualification as an industrial hygienist as defined in section 24-30-1402, C.R.S., and description of experience in assessing contamination associated with methamphetamine labs.

CEH failed to provide the necessary documentation (See the section already discussed above under “Authorized Personnel.”)

Failure to comply with 6 CCR 1014-3 8.22

According to the State regulations the final documentation is required to contain:

8.22. Certification of procedures and results, and variations from standard practices.

As detailed above and following, CEH deviated wantonly from the State regulations, and nowhere did CEH provide any explanations or justifications of these gross deviations.

Failure to comply with 6 CCR 1014-3 8.23.

According to the State regulations the final documentation is required to contain:

8.23. A signed certification statement in one of the following forms, as appropriate:

“I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4, and that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, § 6. I further certify that the property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, § 5, and that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.

”I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, §4. I further certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.”

CEH made a false certifications, and failed to meet the provisions of the requirements of Paragraph 8.23 of 6 CCR 1014-3.

On Page 2 of the document titled “Final Report for Methamphetamine Testing and Remediation (suggested date)” Mr. Dennison signed the following statement:

Certification

I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3 §4, and that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, §6. I further certify that the property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, §5, and that the cleanup standards

established by 6 CCR 1014-3, §7 have been met as evidenced by testing I conducted.

The statement is false since,

- 1) as demonstrated in this Critical Review, the purported Preliminary Assessment, was not performed in accordance with the provisions of 6 CCR 1014-3 §4
- 2) As demonstrated in the preceding discussion and below, the clean-up standards, as established by 6 CCR 1014-3, §7, have not been met as evidenced by the testing that was conducted.
- 3) The sampling, as demonstrated in the preceding discussion, was not performed in accordance with the provisions of 6 CCR 1014-3 §4
- 4) The property was not decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, §5.

Possible Violation of CRS §18-5-114 Offering a false instrument for recording

One of two mental states necessarily must have been present in the performance of the CEH work: 1) Either CEH knew that the work it was performing was grossly deviant from mandatory State requirements or, 2) CEH was unaware of the fact that their work was grossly deviating from mandatory State requirements.

If CEH did not know that their work was grossly deviating from mandatory State requirements, then that is sufficient to surmise that they lacked the technical competency and authority to perform the work in the first place since it is their professional obligation to conform to those regulations and perform work pursuant to those regulations. Indeed, on two occasions CEH personnel have signed statements affirming on a legal document that the work they performed conformed to those regulations.

However, since FACTs has, in the past on other properties^{21,22,23,24,25,26} throughout the State of Colorado assessed by CEH, repeatedly pointed out the same deficiencies in CEH

²¹ 3509 Montrose Street, Evans CO (4/5/06) <http://forensic-applications.com/meth/Initial-review.pdf>

²² 1812 164th Place, Thornton CO (4/23/09) <http://forensic-applications.com/meth/164thCriticalReview.pdf>

²³ Property address sealed by court order (9/23/09)

²⁴ 24018 Deer Valley Road, Golden, CO (8/25/10) <http://forensic-applications.com/meth/DVRCriticalReview.pdf>

²⁵ Columbine Apartments, Unit A107 605 Wickes Ave. Craig, CO 81625 (12/30/07) <http://forensic-applications.com/meth/columbinepreliminaryassessment.pdf>

work, (as referenced in this discussion), one must surmise that CEH knowingly and willingly performed work that deviated grossly from mandatory State requirements.

According to Colorado Revised Statute CRS §18-5-114 (*Offering a false instrument for recording*), a person commits a class 5 felony when offering a false instrument for recording in the first degree if, knowing that a written instrument relating to or affecting real or personal property or directly affecting contractual relationships contains a material false statement or material false information, and with intent to defraud, he presents or offers it to a public office or a public employee, with the knowledge or belief that it will be registered, filed, or recorded or become a part of the records of that public office or public employee.

Pursuant to State statute, and state regulations, the mandatory “Preliminary Assessment” and the final report on post remediation sampling of an illegal drug lab is filed with the “Governing Body” with jurisdiction wherein the property is located. CEH has in the past explicitly acknowledged that fact since they have referenced the Governing Body in their documentation and the submission of final reports to the same.

We recommend that the situation be forwarded to the District Attorney for proper evaluation, and to determine if the case rises to the level of criminal conduct.

DISCUSSION

The work performed by CEH exhibits a profound lack of technical competency. The work performed by CEH contained multiple willful violations of State regulations.

The work performed by Mr. Dennison constituted a violation of the Code of Ethics of the American Board of Industrial Hygienists and fails to meet a minimum standard of professional care. Specifically, Mr. Dennison has violated the following AIHA Codes of Ethics:

- AIHA (I)(A)(1)
- AIHA (I)(A)(5)
- AIHA (II)(A)(1)
- AIHA (II)(A)(2)
- AIHA (II)(A)(3)
- AIHA (II)(A)(5)
- AIHA (II)(A)(6)
- AIHA (II)(C)(1)
- AIHA (II)(C)(2)

Violation of AIHA (I)(A)(1)

Comply with laws, regulations, policies, and ethical standards governing professional practice of industrial hygiene and related activities, including those of professional associations and credentialing organizations.

²⁶ 19042 E 53rd Ave., Denver, CO (12/10/08) <http://forensic-applications.com/meth/gollaspa.pdf>

Clearly, as described above and yet to be delineated below, Mr. Dennison has failed to comply with the mandatory Colorado Regulations in the performance of this work.

Violation of AIHA (I)(A)(5)

Refrain from any public behavior that is clearly in violation of accepted professional, ethical or legal standards.

Clearly, as described above, and yet to be delineated below, Mr. Dennison has failed to refrain from behavior that is in violation of the accepted professional and legal standards, by violating both.

Violation of AIHA (II)(A)(1)

Deliver competent services in a timely manner, and with objective and independent professional judgment in decision-making.

As described above, and yet to be delineated below, Mr. Dennison has not performed the necessary work in a competent manner.

Violation of AIHA (II)(A)(2)

Recognize the limitations of one's professional ability, and provide services only when qualified. The member is responsible for determining the limits of his/her own professional abilities based on education, knowledge, skills, practice experience, and other relevant considerations.

As described above, and yet to be delineated below, Mr. Dennison has clearly performed work for which he was not capable or qualified. If, on the other hand, Mr. Dennison argues that he was capable and qualified, one must then conclude that his work was intentionally deficient, which would constitute criminal fraud.

Violation of AIHA (II)(A)(3)

Provide appropriate professional referrals when unable to provide competent professional assistance.

Mr. Dennison failed to refer the work to a competent Industrial Hygienist.

Violation of AIHA (II)(A)(5)

Properly use professional credentials and provide truthful and accurate representations concerning education, experience, competency and the performance of services.

By claiming in his "brief-Bio" to have performed additional clandestine drug lab assessments, Mr. Dennison is axiomatically claiming to have *properly* performed that work. However, since available documentation exists that indicates that Mr. Dennison has NEVER performed a valid clandestine drug laboratory assessment, one is forced to conclude that Mr. Dennison is intentionally misleading the client or has simply fabricated his experience.

Violation of AIHA (II)(A)(6)

Provide truthful and accurate representations to the public in advertising, public statements/representations, and in the preparation of estimates concerning costs, services, and expected results.

Mr. Dennison falsely presented himself to the public as a competent Industrial Hygienist qualified to perform clandestine drug laboratory assessments pursuant to Colorado Regulations 6 CCR 1014-3. Clearly, as described above and yet to be delineated below, Mr. Dennison is not capable or qualified to perform the required work in a proper or professional manner.

Violation of AIHA (II)(C)(1)

Follow appropriate health and safety procedures in the course of performing professional work to protect clients, employers, employees, and the public from conditions where injury and damage are reasonably foreseeable.

By performing grossly deficient work, and, as described below, demonstrating an history of habitual gross incompetence, one can reasonably foresee that Mr. Dennison’s clients, and the general public, are now placed at risk of injury and damage due to his incompetency.

Violation of AIHA (II)(C)(2)

Inform appropriate management representatives and/or governmental bodies of violations of legal and regulatory requirements when obligated or otherwise clearly appropriate.

Mr. Dennison states he is familiar with State Regulation 6 CCR 1014-3. Therefore, Mr. Dennison must be aware of the fact that his work is in gross violation of those regulations. Therefore, Mr. Dennison had the professional obligation to bring his regulatory violations to the attention of the Governing Body.

We recommend that our confidential client report Mr. Dennison to the AIHA for the above violations.

We recommend that the Governing Body review each of the reports presented by CEH, and warn the property occupants of the probable noncompliance of their properties.

CONCLUSIONS

The property contains methamphetamine at concentrations in excess of regulatory limits.

Since the regulations were not followed, the seller has violated State statutes by failing to disclose the noncompliance status of the property to the current occupant.

No legitimate Preliminary Assessment was conducted for this property, as required by regulation.



Decontamination procedures used by the remediation contractor violated State regulations.

No valid post-remediation clearance has been conducted for this property, as required by regulation.

The property remains in a state of noncompliance.

The property remains contaminated.

APPENDIX A
FACTs LABORATORY REPORT

APPENDIX B
FACTs SOQ