



What to Know about the BakerRisk Hazardous Area Classification Tool (HACTool[®])

Presenter: Stuart Powell

- Member of AIChE (American Institute of Chemical Engineers) and CGA (Compressed Gas Association)
- 5+ years of experience working on HAC studies, in addition to Facility Siting, Quantitative Risk Analysis, and PHAs.





Incident Investigation and Litigation Support



BakerRisk has an esteemed reputation for integrity, earned from performing incident investigations objectively, scientifically, systematically, and thoroughly for 35+ years.

Loss Prevention Services



BakerRisk utilizes a data-driven analytical approach to analyze and design optimal loss prevention and mitigation solutions.

Testing and Research & Development



From standard test programs to more complex custom testing requirements, our engineers have extensive field experience to design a program to meet your needs.

Risk Management and Mitigation Services



Our expertise is built on lessons learned from hundreds of incident investigations and a highly qualified team of consultants averaging 20+ years of industry experience.

BakerRisk Learning Center



For 35+ years BakerRisk has helped our clients improve their understanding and management of their hazards and risks with our industry-leading expertise.

About BakerRisk

Baker Engineering and Risk Consultants, Inc. is one of the world's leading explosion analysis, structural design, and risk management companies. BakerRisk provides comprehensive consulting, engineering, laboratory, and full-scale facility testing services to government agencies and private companies who are involved with hazardous operations or materials.

35+ years

Providing Solutions to Manage Hazards and Risks

Baker Engineering and Risk Consultants, Inc.
San Antonio | Houston | Los Angeles | Chicago | Toronto, Canada | Chester, United Kingdom
www.BakerRisk.com



What to Know about the BakerRisk Hazardous Area Classification Tool (HACTool[®])



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Overview

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Application

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Demonstration*

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Future Developments

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Pricing & Download

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Questions & Answers

Introduction



Software package developed by BakerRisk to assist designers, engineers, contractors, operators, and others in the **development of classified area boundaries** and **report gaps in electrical equipment suitability** for classified areas.

Introduction

Calculate
Classified Area
Boundaries &
Characteristics



Store data on
electrical
equipment and
point sources

Determine if
electricals are
suitable to
comply with
industry
standards (NFPA
497)

Generate HAC
drawings for
hot work,
permits, etc.

Introduction

Class I, Division 2, Group D & T-code

Blanket Approach

Pros

- “Quick and Easy”
- Short analysis time

Cons

- Over-conservative assumptions
- High equipment cost for more areas
- Can't always determine driving source/scenario



Point-Source Approach

Pros

- Reduces classified areas, reduces capital cost & maintenance cost
- Determines which source/scenario is driving classification rating

Cons

- Takes more time to develop as is more in-depth
- Takes time to keep ‘evergreen’

Application

1 Design Work

Greenfield work to determine extent distances of HAC contours to determine suitability of proposed equipment

2 Process Changes

Changing out equipment or modifying equipment

3 Electrical Audit

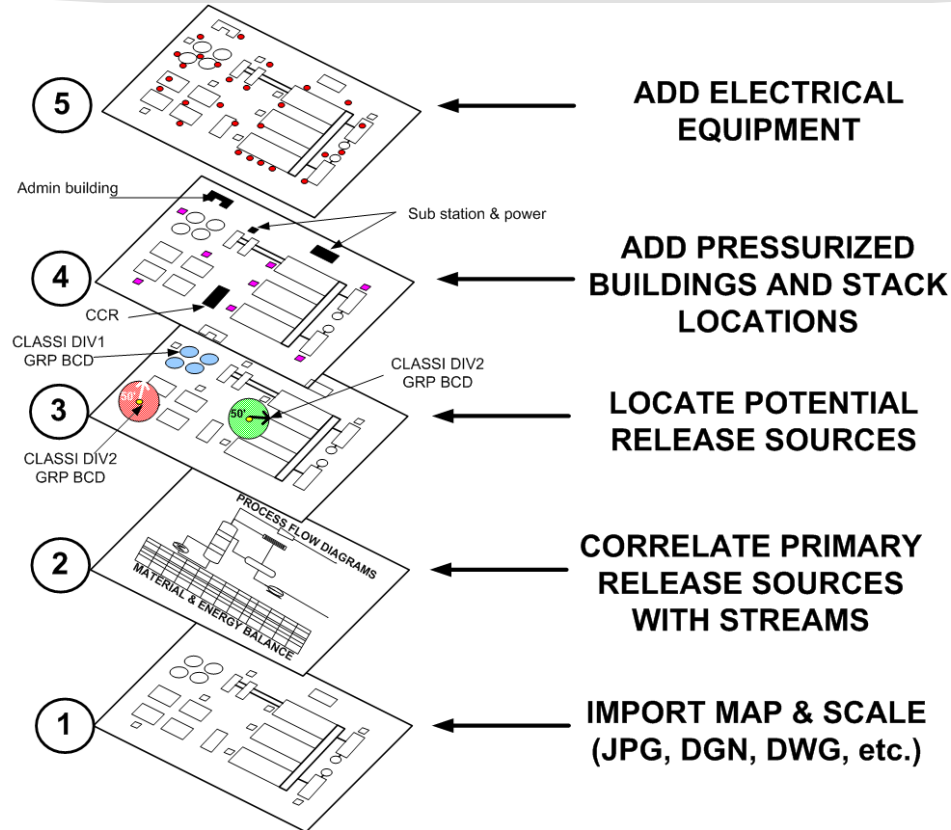
Determining if existing, or proposed, electrical equipment is suitable for area

4 Reporting and Documentation

Quickly developing new HAC DWGs or modifying existing drawings based on updates

HACTool[©]

Typical Layered Approach



Demonstration



Future Developments

1

Functionality for Additional Standards

Adding in capability to assess NFPA 499, API 500, BS EN 60079, etc.

2

Custom Contours

Allowing users to generate custom HAC contours (based on engineering judgement).

3

Full Report Auto-generation

Adding in ability to develop a full report based on inputs and results.

4

Opportunities for Improvement

Adding in additional capabilities/updates based on user feedback.

Pricing and Downloading



One Week Trial

FREE



1 License for 3 months

\$3,000



1 License for 6 months

\$5,500



1 License for 12 months

\$10,000



<https://www.bakerrisk.com/product/hactool-software-licenses/>

Additional HAC Resources?



Identify | Evaluate | Solve

- Additional Webinars at - <https://www.bakerrisk.com/webinar/>
- HAC Best Practice Document - <https://www.bakerrisk.com/br-bp-wp/hazardous-area-classification/>
- HAC Training Course (2023) - <https://www.bakerrisk.com/bakerrisk-learning-center/>
- Technical Contacts at BakerRisk - <https://www.bakerrisk.com/about-bakerrisk/locations/>



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