

## Duke Energy Gas Transmission Canadian Internal EHS Compliance Audit Program

Risk-based Program Design & Evolution "Update and Integrate"

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## **Presentation Objectives**

- Review the risk-based process / rational embedded in the design of the Duke Energy Gas Transmission (DEGT) Compliance Monitoring Program... Update
- Review the DEGT Canadian Environment, Health and Safety (EHS) Compliance Program's growing convergence with <u>other</u> EHS Management System (MS) diagnostics... Integrate

## Duke Energy's



# **EHS Management System**

### 1: Roles, Responsibilities and Accountabilities

Management creates the vision, sets the performance expectations and provides the resources to support the EHS management system.

#### 2: Risk Management

Anticipate, prevent and mitigate environmental, health & safety risks and impacts to protect people, the environment and the business.

#### 3: Emergency Preparedness and Response

Anticipate, plan and drill to reduce the occurrence and severity of environmental, health & safety emergency situations.

San Independent

MEASUREMENT

#### 4: Compliance Management

Identify, communicate and satisfy legal and other EHS obligations.

### 5: Supplier, Contractor and Partner Relationships

Select and work with suppliers, contractors and partners to improve overall environmental, health & safety performance.

#### 6: Stewardship and Community Relations

Manage the use of natural resources and energy as an integral part of our business to maintain quality of life and reduce waste and emissions. Open communication builds trust and cooperation with the communities we serve.

### 8: Incident Reporting and Investigation

Report and investigate incidents to determine causes, correct deficiencies and prevent recurrence.

#### 9: Assessment and Management System Review

Conduct assessments to determine environmental, health & safety compliance and assure management systems are in place and working effectively.

#### 7: Goals Setting and Performance Measurement

Establish goals, implement business plans and track progress to improve environmental, health & safety results and achieve expectations.



# EHS Compliance Monitoring Program Scope

- Activities covered under the program
  - Construction
  - Commissioning
  - Daily operations
  - Maintenance
  - Decommissioning
- Legal and "other" requirements / registry requirements as applicable
- Not just geographies, but programs and process logics

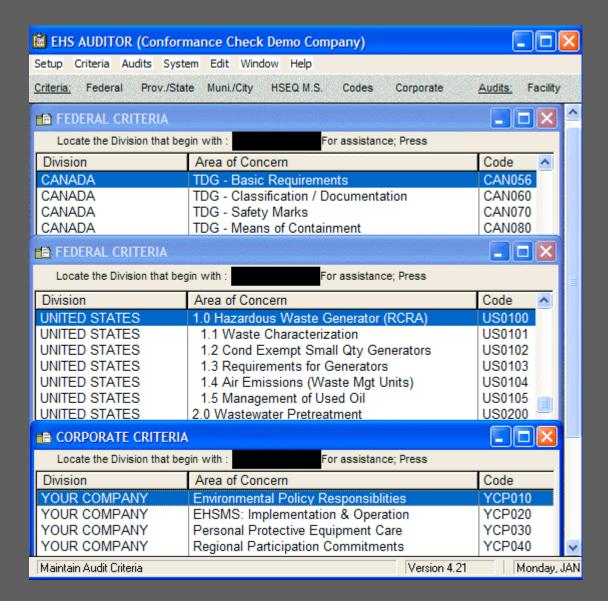


# EHS Compliance Monitoring Program Risk Assessment Philosophy

- DEGT's internal auditing philosophy...
  - Use industry "best practices" where we can
  - Comprehensive risk based audit program based on the EHS MS and the risk-driven definition of audit "tiers", auditable units and frequency
  - Use a balance of internal and external auditors
  - Auditors equipped with state of the art information platforms that support protection of solicitor / client privilege
  - Eventually, tie to other EHS profiles and diagnostics

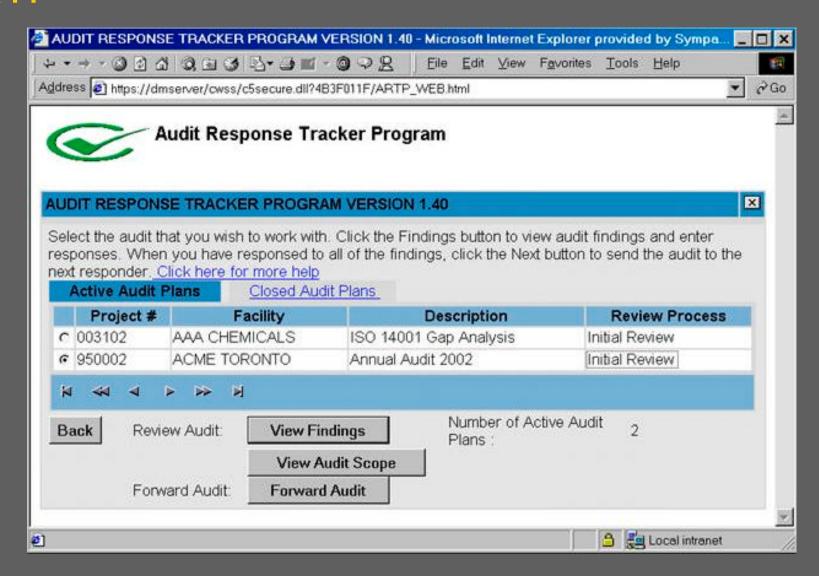


### **EHS** Auditor





### **ARTP**





# EHS Compliance Monitoring Program Auditable Units

- An auditable unit is comprised of several auditable facilities (common attributes & management and / or a unique standalone asset)
- All auditable units grouped into categories based on assessment of risk, complexity of operations, and nature of materials used and stored, etc...
- All data validated by 3<sup>rd</sup> party (Management Horizons Consulting)



# EHS Compliance Monitoring Program Design

EHS Compliance Program for "Auditable Units",

First Tier Formal / Comprehensive EHS Compliance

Audits

Second Tier Internal Self Assessment Program and

other forms of Assessment / Inspections

Auditable Unit Level

Third Tier EHS Compliance Audits

External



# Auditable Units Tier 1 EHS Compliance Audit Frequency

- High Risk Facilities
  - Two Year Audit Cycle
- Medium Risk Facilities
  - Three Year Audit Cycle
- Low Risk Facilities
  - Four to Five Year Audit Cycle



# EHS Compliance Monitoring Program Analysis

- Analysis conducted at the end of each audit season
- The goal is to translate operational compliance data into management system insight
- Analysis of results add value by:
  - Refining and justifying audit schedule
  - Dealing quickly with common, individual facility or auditable unit risks
  - Increasing quality of EHS performance (its more effective, timely and productive when assessments are built into day-to-day operations)



## Where do we want to go from here?

• Explore ways to converge all profile and trending exercises (e.g. injuries, institutional risk profiles, environmental upsets, etc...) into a single cohesive logic

... call it the "Unified Theory of EHS Analysis"



## Other Diagnostics and Approaches

- Cultural inventories?
- Six Sigma?
- "What if" modeling?
- Process and facility-level risk profiling?
- Cross-functional convergence (e.g. HR, QA, TQM, etc..)?

In other words, once you've moved your EHS audit program out of the rudimentary mechanics of "Engineer, Educate, and Enforce", you're only limited by your imagination in your efforts to grow the sophistication of your EHS MS!



### Wrap-up

### Update

 Set-up and maintain your internal EHS compliance monitoring program using a risk-centric approach

### Integrate

- Cross-reference your compliance audit finding trends with incident / injury and risk profiling work initially
- Eventually move on to other diagnostics and processes



Thank-you

Questions?

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