

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 other 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.

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.



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.

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

EHS AUDITOR (Conformance Check Demo Company)

Setup Criteria Audits System Edit Window Help

Criteria: Federal Prov./State Muni./City HSEQ M.S. Codes Corporate Audits: Facility

FEDERAL CRITERIA

Locate the Division that begin with : For assistance; Press

Division	Area of Concern	Code
CANADA	TDG - Basic Requirements	CAN056
CANADA	TDG - Classification / Documentation	CAN060
CANADA	TDG - Safety Marks	CAN070
CANADA	TDG - Means of Containment	CAN080

FEDERAL CRITERIA

Locate the Division that begin with : For assistance; Press

Division	Area of Concern	Code
UNITED STATES	1.0 Hazardous Waste Generator (RCRA)	US0100
UNITED STATES	1.1 Waste Characterization	US0101
UNITED STATES	1.2 Cond Exempt Small Qty Generators	US0102
UNITED STATES	1.3 Requirements for Generators	US0103
UNITED STATES	1.4 Air Emissions (Waste Mgt Units)	US0104
UNITED STATES	1.5 Management of Used Oil	US0105
UNITED STATES	2.0 Wastewater Pretreatment	US0200

CORPORATE CRITERIA

Locate the Division that begin with : For assistance; Press


Division	Area of Concern	Code
YOUR COMPANY	Environmental Policy Responsibilities	YCP010
YOUR COMPANY	EHSMS: Implementation & Operation	YCP020
YOUR COMPANY	Personal Protective Equipment Care	YCP030
YOUR COMPANY	Regional Participation Commitments	YCP040

Maintain Audit Criteria Version 4.21 Monday, JAN

ARTP

AUDIT RESPONSE TRACKER PROGRAM VERSION 1.40 - Microsoft Internet Explorer provided by Sympa...

Address: https://dmserver/cwss/c5secure.dll?4B3F011F/ARTP_WEB.html

 **Audit Response Tracker Program**

AUDIT RESPONSE TRACKER PROGRAM VERSION 1.40

Select the audit that you wish to work with. Click the Findings button to view audit findings and enter responses. When you have responded to all of the findings, click the Next button to send the audit to the next responder. [Click here for more help](#)

Active Audit Plans [Closed Audit Plans](#)

Project #	Facility	Description	Review Process
003102	AAA CHEMICALS	ISO 14001 Gap Analysis	Initial Review
950002	ACME TORONTO	Annual Audit 2002	Initial Review

Navigation: [Previous] [Previous] [Previous] [Next] [Next] [Next]

Review Audit:
 Number of Active Audit Plans : 2

Forward Audit:

Local intranet

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 3rd 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 <ul style="list-style-type: none">• Auditable Unit Level
Third Tier	EHS Compliance Audits <ul style="list-style-type: none">• 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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Duke Energy Gas Transmission

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