

Dow's Security Strategy & Practice

Potential Threat Actors' Tactics, Techniques & Procedures

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Threat Assessment

- Current threat assessment:
 - OBL and AQ leadership/communication disruption has
 - lowered the threat of a major coordinated attack
 - Increased the activity and potential of individual or small group independent attacks
 - The latter is more difficult to identify/disrupt
 - Advance warning is unlikely
 - Significant progress has been made in both site and supply chain security
 - CFATS, MTSA in the US
 - Expansion of CTPAT to EU, Green Lane projects to China
 - Seveso & Authorized Economic Operator process in EU
 - Voluntary industry efforts
 - Global implementation of Responsible Care through ICCA

Industry Response

- The government and industry response in the US to the potential of a direct terrorist attack was quick and appropriate.
- Outside the US the reaction was mixed and now the global threat picture is changing
- We need to focus on this global picture
 - An indirect attack or an insider threat is much more likely than a direct attack at our sites

Dow

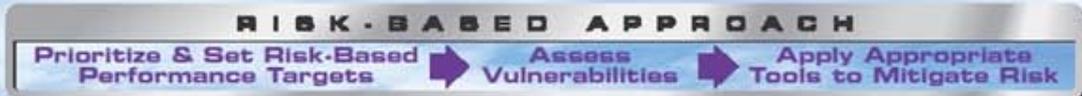
- Over 1000 suppliers
- 2.5 million product shipments to more than 45,000 customer locations in 160 countries each year
 - 67% by land, 33% by marine
- Over 500 manufacturing, administration and research facilities around the world
 - Growing and typically in areas of higher risk
- Thousands of site entries, phone/internet orders, miles of shipments
 - Many potential vulnerabilities
 - Each represents a potential “hole in your fence”



AN INTEGRATED APPROACH TO CHEMICAL INDUSTRY SECURITY

Dow applies the same safety and security approaches wherever it operates — worldwide

NATIONAL SECURITY



Dow has had multi-level plans since 1988



Track and Trace Technology

Supply Chain Security is a shared responsibility between shippers, carriers and the government

Each plant is unique & may need different risk-reduction tools

Customs and Border Crossing
Dow achieved highest level C-TPAT certification

Tamper Proof Container Security Seals

REDUCE PRESSURE
& Use in Process without Storage

LOWER TEMP

Eliminate Storage & Process Options
Use Alternative Plant Process Alloys

Security Dispatch Centers Linked Globally

- DOW'S APPROACH**
- Comprehensive approach focused on prioritization & risk reduction
 - Partnership & information sharing with government is critical
 - Commitment to security & risk reduction goals
 - Independent Advisory Panel on Chemical Security
 - Commitment to Responsible Care® & uniform industry standards



Full Compliance with MTSA

SITE & FACILITY SECURITY

Next Generation Rail Car Effort

Perimeter Surveillance/Sensors

Vulnerability Assessments by Process Safety Engineers and Security Professionals

All Hazmat Railcars Stored within Site Fence Lines

Monitor and Shutoffs for Plant Operations and Pipelines

Buffer Zones and Greenbelts

Vehicle Barricades

Third Party Verification and Audits

SUPPLY CHAIN

SUPPLY CHAIN



EMERGENCY RESPONSE

- Comprehensive Crisis Management Plans
- Trained Professional Responders
- Armed Response
- Training of Local Responders & Community Awareness
- CAER & TRANSCAER



INFORMATION / CYBER SECURITY

- Authentication
- Firewalls
- Access Control
- Document Classification/Strict Controls
- Process Control Systems Segregated from Internet
- Sharing of Best Practices Across Industry



PERSONNEL SECURITY

- Electronic Badging and Access Controls
- Background Checks
- Travel Warnings
- Executive Security
- Ex-Pat Security
- Event Security

Cross-functional integration

- Issues Management Team for Public Safety and Chemical Security
 - Emergency Services & Security
 - Supply Chain
 - Process Safety
 - Info/Systems security
 - Government & Public Affairs
 - Legal
- Global Team & Geographic Area Teams
- Focus on issues & operational implementation

ES&S Work Processes

- Implement Responsible Care Codes consistently on a global basis
- Emergency Services & Security Work processes consistently on a global basis
 - Dow's global security plans and upgrades are implemented globally, but applied locally.
 - Global Implementation with Site and area flexibility requires threat assessments that are timely and applicable.

Global Standards

- Gate-to-gate safety & security
 - Positive identification, site entry requirements
 - Order entry/customer verification
 - Qualification/assessment of logistics providers
 - Container selection/inspection
 - loading/unloading procedures
 - Container securement & sealing
 - Emergency response preparedness & procedures
 - Reduce shipments of highly hazardous materials by 50%
 - Includes all toxic inhalation hazards and flammable hazards

Global Standards

- Inbound/Outbound transportation of products & raw materials *including Dow-to-Dow shipments*
- Shipments arranged by 3rd party logistics service providers
- Exchanges/swaps/tolls/direct purchases under a Dow bill of lading
- Shipments for all Dow businesses and wholly-owned companies
- Shipments for Dow joint ventures
- Material handled/stored for further distribution by Dow

Global Standards

- Physical Security
 - Site vulnerability assessments & Responsible Care risk tiers established for all sites globally
 - Physical and personnel security global standards established for each tier
 - All facilities have a designated site focal point for security and site crisis management implementation
- Supply Chain
 - Site security vulnerability assessments include loading and unloading facilities
 - All facilities have a designated site focal point for supply chain and site crisis management implementation
 - Potential product sales are screened
 - Baseline risk reviews against scenarios are conducted
- Both integrated through global multi-level security plans adjusted against current risk on a site, geographic area or global basis

**Corporate
Crisis Management Team**

**North
American
Area
CMT**

**Latin
American
Area
CMT**

**Asia
Pacific
Area
CMT**

**European
Area
CMT**

**MEA
Area
CMT**

Joint Ventures

Crisis Management Support Team

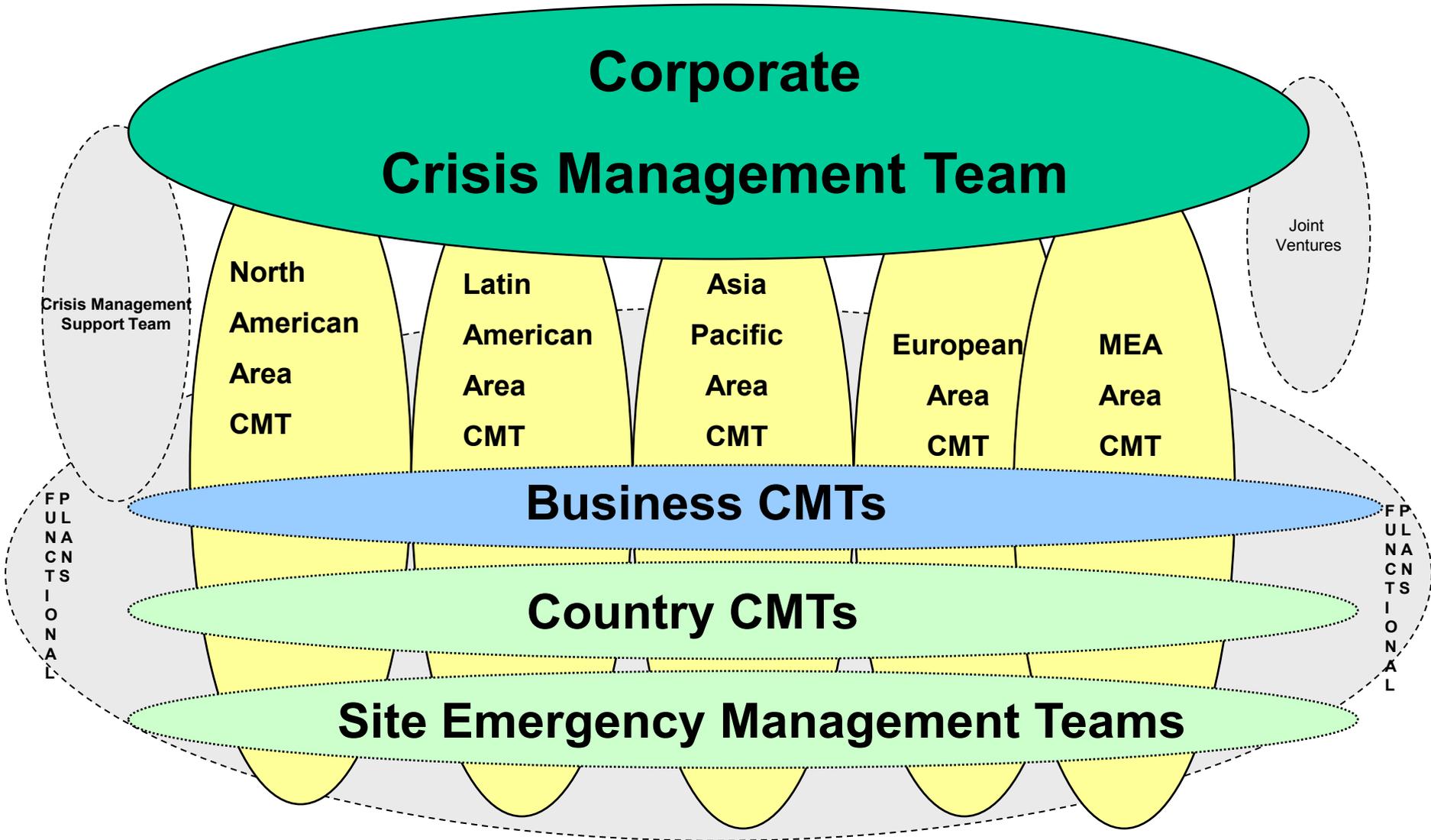
Business CMTs

Country CMTs

Site Emergency Management Teams

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Summary

- The threat has evolved
 - Insider or indirect attacks by individuals or small groups are the emerging threat
 - Sites and supply chain remain potential targets
 - Possibly as a target of attack, but more likely as a source for diversion
 - Implementation of corporate/global plans, operating discipline or work processes is critical to closing potential vulnerabilities
 - People implement those plans every day
 - Their awareness/engagement is key to success.