



Aquila

Matrix-Based Emergency Notification

Joe Jenkins, PG, CHMM - Pueblo CO

Steve Riner, CHMM - Pueblo, CO



Accidents happen!



Accidents happen!



Regulatory Requirements - Reporting

- **29 CFR 1904** – Reporting Fatality or Multiple Hospitalization Incidents
- **40 CFR 110** – Reporting Releases of Oil to Waters of the US
- **40 CFR 116** – Reporting Releases of Hazardous Substances to Waters of the US
- **40 CFR 261/262** – Reporting Releases of Hazardous Wastes
- **40 CFR 264** – Reporting Releases from Tank Systems
- **40 CFR 280** – Reporting Releases from Underground Storage Tanks
- **40 CFR 302** – Reporting Releases of Hazardous Substances
- **40 CFR 355** – Reporting Releases of Extremely Hazardous Substances
- **40 CFR 761** – Reporting Releases of PCBs
- **49 CFR 192.615** – Emergency Plans
- **49 CFR 199** – Pipeline Safety Drug and Alcohol Testing
- **49 CFR 382** – Federal Highway Drug and Alcohol Testing



National Response Center (NRC)

8 0 0 - 4 2 4 - 8 8 0 2	ABOUT US	SERVICES	CONTACT US
:: NRC MISSION ::			
<p>The NRC is the sole federal point of contact for reporting oil and chemical spills. If you have a spill to report, contact us via our toll-free number or check out our Web Site for additional information on reporting requirements and procedures. For those without 800 access, please contact us at 202-267-2675. The NRC operates 24 hours a day, 7 days a week, 365 days a year. Click here to send an email to the NRC Duty Officer.</p>			
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NRC Reports – Colorado Springs, CO

NRC Report#	Incident Date	Street	Location County	City	State	ZIP	Suspected Responsible Company	Type Of Incident	Medium Affected	Material Name
640665	03/26/2003	1415 FORD STREET	EL PASO	COLORADO SPRINGS	CO	(null)	ROYAL CREST DAIRY	MOBILE	WATER	ANTIFREEZE
634885	01/22/2003	BLDG. # 2242	EL PASO	COLORADO SPRINGS	CO	(null)	COLORADO SPRINGS US AIRFORCE ACADEMY	PIPELINE	LAND	RAW SEWAGE
625633	10/10/2002	MARTIN DRAKE POWER PLANT700 SOUTH CONEJOS ST	EL PASO	COLORADO SPRINGS	CO	(null)	COLORADO SPRINGS UTILITIES	CONTINUOUS	AIR	(null)
615371	07/02/2002	RESIDENTIAL AREA -HWY 24 & CONSTITUTION AVE	EL PASO	COLORADO SPRINGS	CO	(null)	COLORADO INTERSTATE GAS	PIPELINE	AIR	NATURAL GAS
612105	06/18/2002	ON 26TH STREET BETWEEN CIMARRON STREET AND COLORADO AVE	EL PASO	COLORADO SPRINGS	CO	(null)	(null)	FIXED	WATER	RAW SEWAGE
613221	06/17/2002	EAST SIDE OF PROPERTY SOUTH OF BALL DIAMOND IN ENCLOSED AREA LIKE CARPORTPIKES PEAK	EL PASO	COLORADO SPRINGS	CO	(null)	DEAF AND BLIND SCHOOL	STORAGE TANK	LAND	OIL: DIESEL
611660	06/10/2002	420 S 10TH ST	EL PASO	COLORADO SPRINGS	CO	80904	(null)	FIXED	WATER	SEWAGE
600484	04/23/2002	THE FIRE OCCURRED IN THE PROCESSING AREA3057 DELTA DRIVE	EL PASO	COLORADO SPRINGS	CO	80910	FINISHES LIMITED	STORAGE TANK	OTHER	CYANIDE GAS
594245	02/16/2002	4310 FOUNTAIN BLVD.	EL PASO	COLORADO SPRINGS	CO	(null)	SENTINEL TRANSPORTATION LLC	MOBILE	WATER	GASOLINE: AUTOMOTIVE (UNLEADED)
587493	12/02/2001	2253 FRONTIER DRIVE	EL PASO	COLORADO SPRINGS	CO	(null)	(null)	FIXED	AIR	UNKNOWN MATERIAL
582155	10/06/2001	1540 BRIAR GATE BLVD	EL PASO	COLORADO SPRINGS	CO	80920	JIFFY LUBE	FIXED	WATER	ETHYLENE GLYCOL
582155	10/06/2001	1540 BRIAR GATE BLVD	EL PASO	COLORADO SPRINGS	CO	80920	JIFFY LUBE	FIXED	WATER	OIL, MISC: MOTOR
629639	10/01/2001	EAST RAIL HEAD, 150 FEET OFF OF THE ROADWAY602 E. 4 ST	EL PASO	COLORADO SPRINGS	CO	(null)	RECYCLE AMERICA	MOBILE	LAND	HYDRAULIC OIL



NRC Reports – Pueblo, CO

Action	NRC Report#	Incident Date	Street	Location County	City	State	ZIP	Suspected Responsible Company	Type Of Incident	Medium Affected	Material Name
View	639257	03/12/2003	1612 ABRIENDO AVE	PUEBLO	PUEBLO	CO	81004	CF&I STEEL	PIPELINE	LAND	COKE PLANT-WASH OIL
View	638656	03/06/2003	1300 EAST HWY 50 BYPASS	PUEBLO	PUEBLO	CO	(null)	SUNSET TIRES AND AUTO SERVICE	FIXED	WATER	OIL: CRUDE
View	628781	11/11/2002	2005 LIME RD.	PUEBLO	PUEBLO	CO	(null)	XCEL ENERGY	PIPELINE	LAND	SULFURIC ACID
View	625744	10/11/2002	105 SOUTH VICTORIA	PUEBLO	PUEBLO	CO	81003	AQUILA	CONTINUOUS	AIR	(null)
View	625746	10/11/2002	475 WILLIAM M WHITE BLVD.	PUEBLO	PUEBLO	CO	81003	AQUILA	CONTINUOUS	AIR	(null)
View	624596	10/02/2002	PUBLIC SERVICE COMPANY OF COLORADO - COMANCHE STATEION2005 LIME ROAD	PUEBLO	PUEBLO	CO	(null)	XCEL ENERGY	CONTINUOUS	AIR	(null)
View	594183	02/15/2002	I-25 SMILE MARKER 107	PUEBLO	PUEBLO	CO	(null)	CON-WAY WESTERN EXPRESS	MOBILE	NON-RELEASE (N/A)	(null)
View	579863	09/15/2001	UNKNOWN	PUEBLO	PUEBLO	CO	(null)	(null)	FIXED	WATER	UNKNOWN MATERIAL
View	563543	04/20/2001	2100 SOUTH FREEWAY	PUEBLO	PUEBLO	CO	(null)	CFI STEEL LP	FIXED	LAND	ASBESTOS
View	552530	01/04/2001	MP 119.4	PUEBLO	PUEBLO	CO	(null)	UNION PACIFIC	RAILROAD	BALLAST	NO CHRIS CODE (COAL)
View	551239	12/17/2000	MOTORCYCLE SHOP1910 E 4TH	PUEBLO	PUEBLO	CO	(null)	(null)	FIXED	LAND	UNKNOWN OIL
View	547407	10/27/2000	WEST 4TH ST.	PUEBLO	PUEBLO	CO	(null)	(null)	RAILROAD NON-RELEASE	RAIL REPORT (N/A)	(null)
View	542925	09/20/2000	AT THE END OF INDIANA AVE	PUEBLO	PUEBLO	CO	(null)	ROCKY MOUNTAIN STEEL MILLS	FIXED	WATER	HYDRAULIC OIL
View	542925	09/20/2000	AT THE END OF INDIANA AVE	PUEBLO	PUEBLO	CO	(null)	ROCKY MOUNTAIN STEEL MILLS	FIXED	WATER	OIL, MISC: LUBRICATING
View	542925	09/20/2000	AT THE END OF INDIANA AVE	PUEBLO	PUEBLO	CO	(null)	ROCKY MOUNTAIN STEEL MILLS	FIXED	WATER	WATER CUTTING SOLUTION
View	530525	05/30/2000	1302 GARY AVE	PUEBLO	PUEBLO	CO	81001	KC READY MIX	MOBILE	WATER	CEMENT RESIDUE
View	525613	04/10/2000	OCCURRED AT A RESTAURANT (NAME UNKNOWN BY THE CALLER) 1224 EAST ELANS	PUEBLO	PUEBLO	CO	(null)	(null)	PIPELINE	AIR	NATURAL GAS

NRC Reports – Detailed Report

NATIONAL RESPONSE CENTER – PUBLIC REPORT

Incident Report # 643450

INCIDENT DESCRIPTION

*Report taken by: CIV JONES at 13:27 on 28-APR-03

Incident Type: FIXED

Incident Cause: UNKNOWN

Affected Area: CONCRETE IRRIGATION DITCH

The incident occurred on 28-APR-03 at 05:00 local time.

Affected Medium: WATER CONCRETE IRRIGATION DITCH

SUSPECTED RESPONSIBLE PARTY

Name: UNKNOWN

XX

Type of Organization: UNKNOWN

INCIDENT LOCATION

County: PUEBLO City: GLENN State: CO

HWY 50 / BETWEEN 22-23 LANES

RELEASED MATERIAL(S)

CHRIS Code: OMN Official Material Name: OIL, MISC: MINERAL

Also Known As:

Qty Released: 60 GALLON(S) Qty in Water: 60 GALLON(S)

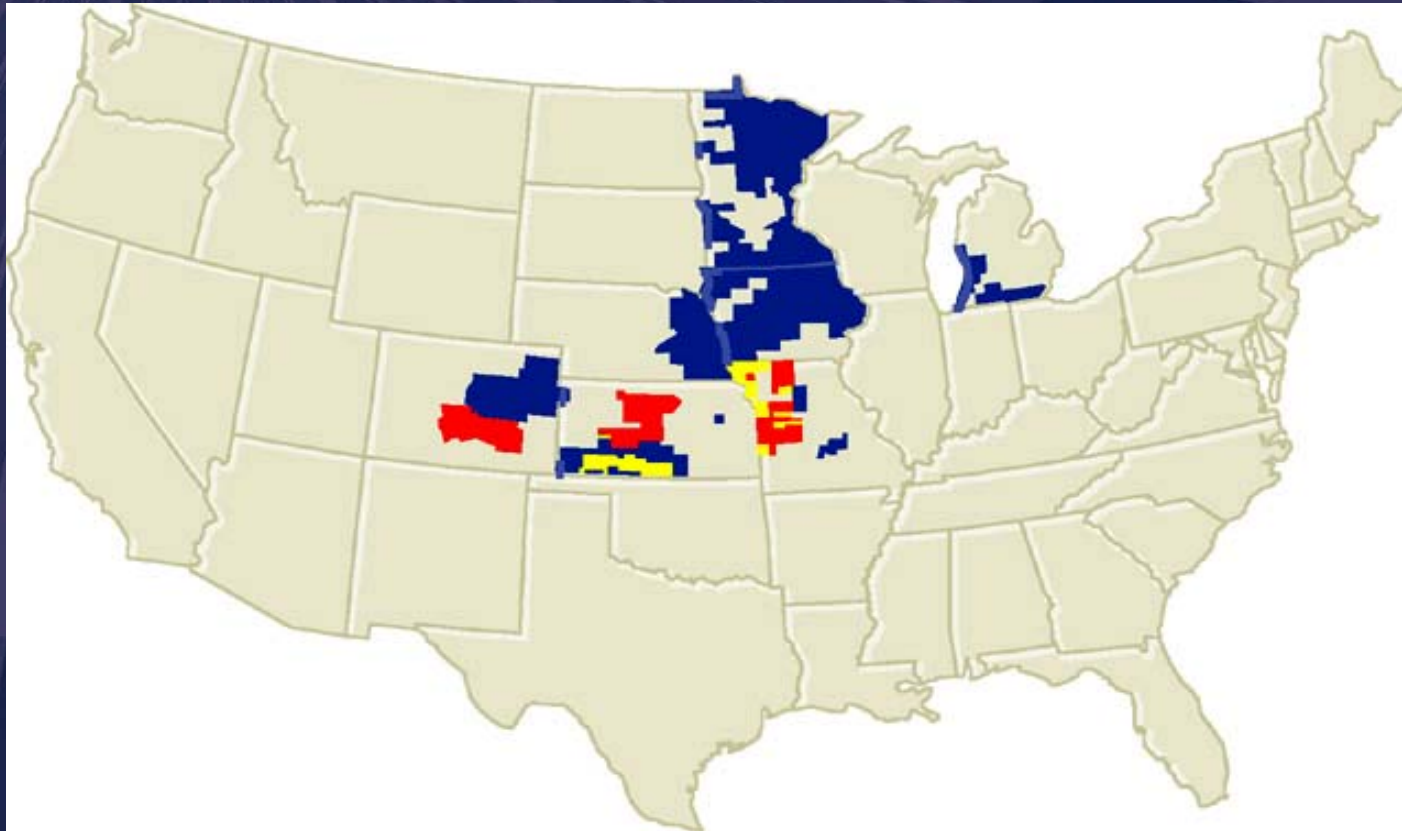
DESCRIPTION OF INCIDENT

THE CALLER STATED THAT A TRUCK DRIVER HIT AN ELECTRICAL POLE WITH A TRANSFORMER ON IT WHICH CAUSED MATERIAL TO SPILL.

Aquila Overview

- Multi-national energy solutions provider
- Aquila serves **seven** states with regulated energy generation and gas and electric distribution services
- Regulated energy services currently provided by **8 state-based** operating divisions

Aquila U.S. Regulated Networks



- Gas Distribution
- Electricity Distribution
- Combination Gas & Electric

US Operations

- ✓ 7 states
- ✓ Gas Customers: 891,000
- ✓ Electric Customers: 438,000
- ✓ On-system appliance repair business

Gas Customers

- Colorado: 52,000
- Iowa: 144,000
- Kansas: 104,000
- Michigan: 158,000
- Minnesota: 191,000
- Missouri: 53,000
- Nebraska: 189,000

Electric Customers

- Colorado: 87,000
- Kansas: 69,000
- Missouri: 282,000

Evolution of Management Systems

- ***Pre-1995***: UtiliCorp United was **holding company** with one electric, five gas, two gas/electric independently operated utilities.
- ***1995-98***: Company **operations consolidated** into energy delivery and generation **divisions**, still with state level management. Support functions began to be centralized.
- ***1998-2002***: Operational/Regional management, **centralized** support functions.
- ***2002***: Renamed Aquila, state management structure, many support functions **decentralized** back to states. (Environmental Services remains central support function.)

Impacts of re-decentralization

- **Separate state organizations responsible for own P/L**
- **Many previously centralized support functions returned to the state organizations**
 - Engineering
 - Safety
- **A few previously support functions remain centralized providing services to all state organizations**
 - Office of General Counsel
 - Environmental Services
 - Risk Services
 - Procurement Services
- **Standardization of processes supported by inter-organizational teams**

Historic Emergency Response Systems

Pre-1996

- **Various types of emergency notification requirements scattered across numerous Division manuals**
- **No system to direct staff to proper manual(s) for a given situation**
- **Many Divisions did not have staff qualified to direct appropriate reporting processes**



HAZARDS

THERE IS AN ISLAND OF OPPORTUNITY IN THE MIDDLE OF EVERY DIFFICULTY.
MISS THAT, THOUGH, AND YOU'RE PRETTY MUCH DOOMED.

www.despair.com

Emergency Notification Needs

- **Keep it simple...** Don't create another (@#\$%@\$) manual
- Assure **clearly defined responsibilities** for directing response activities and making agency notifications
- **Coordinate internal and external support**
- **Prioritize actions and notifications**



Development of Matrix Format

- **Development Team**
 - Gas & electric operations
 - Corporate Communications, Safety, Environmental, Risk Mgmt., etc.
- **Team Goals**
 - Define “**Emergency**”
 - **Coordinate and sequence activities** for over 25 emergency situations
 - **Identify who must be involved:**
 - External agencies requiring notification and time frames for notification
 - Internal resources needed to manage the emergency

Potential Emergencies

- **Death or Serious Injury**
- **Vehicle Accident**
- **Alcohol/Drug Testing**
- **Hazardous Materials Incident**
- **Environmental Releases (numerous types)**
- **Serious Weather-related Events**
- **Civil Disturbance, Riots, Bomb Threats**
- **Gas-related Incident or Evacuation, Fire, Explosion**
- **Service Interruptions**
- **Terrorist-related Events (post 9/11/01)**

Internal & External Resources

- **Internal:**
 - Senior Management
 - Corporate Communications
 - Safety
 - Environmental
 - Incident Response and Investigation Team
- **Internal (Cont.):**
 - Risk Services
 - Community Services
- **External:**
 - Emergency Response Contractor
 - Legal Counsel

Agencies Requiring Notification

- **Federal Agencies:**
 - National Response Center (DOT/EPA/ Homeland Security)
 - OSHA
 - Regional EPA
- **State Agencies**
 - State Utility Commissions / Pipeline Safety Agencies
- **State Agencies (Cont.)**
 - Environmental / Health
 - State Emergency Response Commissions
- **Local:**
 - LEPCs
 - Fire Depts./HazMat

Development of “The Matrix”

The number of potential emergencies and the variability of internal and external notification requirements led to development of the matrix format

COLORADO		¹ Time Frames for Required Actions/Notific		
Type of Emergency (Incident/Accident/Release)	On-Scene Responder	Performed by Off-Scene Supervisor or		
	Immediate Actions	First 15 Minutes	15 Minutes to 2 Hours	2 Hours to 8
Safety-Related Incidents				
Commercial Vehicle Accident if fatality is involved	Call 911 for assistance. <u>Only if trained:</u> Attend to injuries. Stop or contain release. Contact off-scene supervisor or Station Manager	Notify the following: State Management Comm. Relations/Media Line Safety State HR Rep Risk Management Legal	⁴ Supervisor must set up drug and/or alcohol testing and must obtain test kit ASAP. (See below)	Safety will notify OSH-321-OSHA if an emp or employee multiple involved.
Death/Serious Injury - Public/Employee/Contractor Includes: <i>CO calls, electrical contacts, heart attacks, and amputations</i>	Call 911 for assistance. <u>Only if trained:</u> Attend to injuries. Contact off-scene supervisor or Station Manager	Notify the following: State Management Comm. Relations/Media Line Safety State HR Rep Risk Management Legal	None	Safety will notify OSH-321-OSHA if an emp or employee multiple involved.
Transportation Incident involving hazardous material that results in a fatality / hospitalization, over \$50,000 property damage, shutdown of highways or evacuation of the public	Call 911 for assistance. <u>Only if trained:</u> Attend to injuries. Stop or contain release. Contact off-scene supervisor or Station Manager	If release response assistance is needed, contact Emergency Response Contractor xxxxxxxxxxxxx @ (800) xxx-xxxx Notify at earliest practicable moment after discovery: NRC @ (800) 424-8802 DOT/State Patrol @ (303) 239-4501 CDPHE @ (877) 518-5608 LEPC (see attached list of State numbers)	Notify the following: State Management Environmental Services Safety State HR Rep Legal	Safety will notify OSH-321-OSHA if an emp or employee multiple involved. Notify: Risk Management Comm. Relations/Me

Matrix Layout

Response time frames



Types of emergencies



Actions to be taken and notifications made for each emergency and time frame

Matrix Layout

COLORADO		¹ Time Frames for Required Actions/Notifications		
Type of Emergency (Incident/Accident/Release)	On-Scene Responder	Performed by Off-Scene Supervisor or Emergency		
	Immediate Actions	First 15 Minutes	15 Minutes to 2 Hours	2 Hours to 8 Hours
Natural Gas-Related Incident involving <u>fatality, serious injury</u> , a fire/unplanned ignition, or greater than \$50,000 <u>damage to property</u> , or <u>other significant event</u> .	<p>Call 911 for assistance.</p> <p><u>Only if trained:</u> Attend to injuries.</p> <p>Contact off-scene supervisor or Station Manager</p>	<p>Notify at earliest practicable moment:</p> <p>NRC @ (800) 424-8802, then notify:</p> <p>State Management Comm. Relations/Media Line Call Center Safety State HR Rep Risk Management Legal</p>	<p>Ops. must notify the PUC2 within 2 hrs. of discovery @</p> <p>(800) 888-0170 X 2854 (303) 894-2000 X 2854</p> <p>If employee caused, 4supervisor must set up drug and/or alcohol testing and must obtain test kit ASAP. (See below)</p>	<p>Safety will notify OSHA @ (800) 321-OSHA if an employee fatality or employee multiple injuries is involved.</p>
Serious Weather-related Incidents including tornadoes, wind storms or floods where <u>imminent hazard</u> to the public, employees or property exists	<p>Call 911 for assistance.</p> <p><u>Only if trained:</u> Attend to injuries.</p> <p>Contact off-scene supervisor or Station Manager</p>	<p>Notify the following:</p> <p>State Management Comm. Relations/Media Line State HR Rep Call Center</p>	None	None
Serious Public Actions including <u>bomb threats, riots, or theft of dangerous materials</u> where imminent hazard to the public, employees or property exists	<p>Call 911 for assistance.</p> <p><u>Only if trained:</u> Attend to injuries.</p> <p>Contact off-scene supervisor or Station Manager</p>	<p>Notify the following:</p> <p>Security Control Station State Management Comm. Relations/Media Line State HR Rep Call Center</p>	None	None
Acts of Suspicious Nature including presence of unauthorized individuals, photographic or electronic surveillance, or other actions of a suspicious nature.	<p>Contact off-scene supervisor or Station Manager</p> <p>If needed, call 911 for assistance.</p>	<p>Notify the following:</p> <p>Notify Corporate Security @ 816-467-8102</p>	None	None

Matrix Layout

COLORADO		† Time Frames for Required Actions/Notifications		
Type of Emergency (Incident/Accident/Release)	On-Scene Responder	Performed by Off-Scene Supervisor or Emergen		
	Immediate Actions	First 15 Minutes	15 Minutes to 2 Hours	2 Hours to 8 Hours
Environmental Incidents				
<p><u>Release of hazardous substance</u> to navigable waters / waters of the state</p>	<p>If needed, call 911 for assistance.</p> <p><u>Only if trained:</u> Attend to injuries. Stop or contain release.</p> <p>Contact off-scene supervisor or Station Manager</p>	<p>If release response assistance is needed, contact Emergency Response Contractor xxxxxxxxxxxxx @ (800) xxx-xxxx</p> <p>Notify CDPHE regardless of amount released @ (877) 518-5608.</p> <p>Notify only if the amount of material released is greater than the Reportable Quantity:</p> <p>NRC @ (800) 424-8802 LEPC (see attached list of State numbers)</p>	<p>Notify the following:</p> <p>State Management Environmental Services Comm. Relations/Media Line State HR Rep</p>	None
<p><u>Release of oil or petroleum product</u> into navigable waters / waters of the state</p> <p>Includes releases from transformers and other oil-containing equipment.</p> <p>Waters of the state includes surface waters, ground water, dry gullies, natural drainage ditches and swales, storm sewers leaking to surface waters, etc.</p>	<p>If needed, call 911 for assistance.</p> <p><u>Only if trained:</u> Attend to injuries. Stop or contain release.</p> <p>Contact off-scene supervisor or Station Manager</p>	<p>If release is from a transformer: Determine PCB content.</p> <p>If PCBs are not determined or are greater than 50 ppm: See below -- Release of PCBs.</p> <p>Notify of a film or sheen on water surface; or if oil enters navigable waters:</p> <p>NRC @ (800) 424-8802 CDPHE @ (877) 518-5608</p> <p>If release response assistance is needed, contact Emergency Response Contractor xxxxxxxxxxxxx @ (800) xxx-xxxx</p>	<p>Notify the following:</p> <p>State Management Environmental Services Comm. Relations/Media Line State HR Rep</p>	None

Immediate Actions

Field Personnel: On-Scene Responder

- **Assess** emergency
- **Stabilize** situation & protect public
- Give **first aid** as needed if trained
- **Stop releases** if possible and if trained to do so
- **Call 911** if necessary
- **Notify Emergency Resource Personnel (ERPs)** via up-the-line reporting

Sequence of Response Actions

ERPs: Off-Scene Response Support

- **First 15 minutes**
 - ERP takes control
 - ERP obtains information about the emergency
 - ERP notifies internally if no immediate agency notifications are required (safety, operations-related emergencies)
 - ERP makes agency notifications immediately if required (**environmental releases - NRC, state environmental / health agencies, LEPCs**)

Sequence of Response Actions

ERPs: Off-Scene Response Support

- **15 Minutes - 2 Hours**
 - **Utility Commissions** notified
 - Internal notifications made to obtain assistance
 - **Drug and alcohol testing** performed, if required
- **2 Hours - 8 Hours**
 - Other notifications not required immediately are made (e.g., **OSHA**)
 - Continuing management of situation

Sequence of Response Actions

ERPs: Off-Scene Response Support

- **8 - 24 hours**
 - If applicable, make “within 24 hours” notifications
 - Continuing management of situation
 - Investigation and recovery
- **After 24 hours**
 - Follow-up investigation and reporting
 - **Claims** reporting – Matrix provides company employees with information on the proper forms to use, phone numbers and contacts)

Training

- **Two-tier Training System**
 - Field personnel
 - Instruction from supervisors and brief overview of the Matrix and types of emergencies they may encounter.
 - **Instructed to report “up-the-line”**
 - ERPs
 - Detailed training in use of matrix
 - Drills and mock calls to agencies
 - Media training

System Maintenance

- **Continually**
 - Update matrix as personnel or phone numbers change
 - A responsibility assigned to one individual
 - Maintain availability of the updated matrix in a corporate-wide shared e-mail folder
- **Approx. every 12 months**
 - Provide refresher training which is now scheduled prior to storm season

How Has It Worked?

- The Matrix has been **used effectively** many times for notification assistance and emergency coordination.
- It has **effectively transitioned with minimal change as Aquila operations evolved** from a state-based organization to a centralized system, then back to a state-based organization.
- It's **well integrated** into operations throughout Aquila's domestic operations.
- It's **dynamic, changing, and responsive** as the company changes, grows and evolves, and as notification requirements change or are implemented (Homeland Security)



DESPAIR

IT'S ALWAYS DARKEST JUST BEFORE IT GOES PITCH BLACK.