



GCCA and Natural Refrigerants

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Government and Legal Affairs*



GLOBAL COLD CHAIN ALLIANCE



International
Association of
Refrigerated
Warehouses

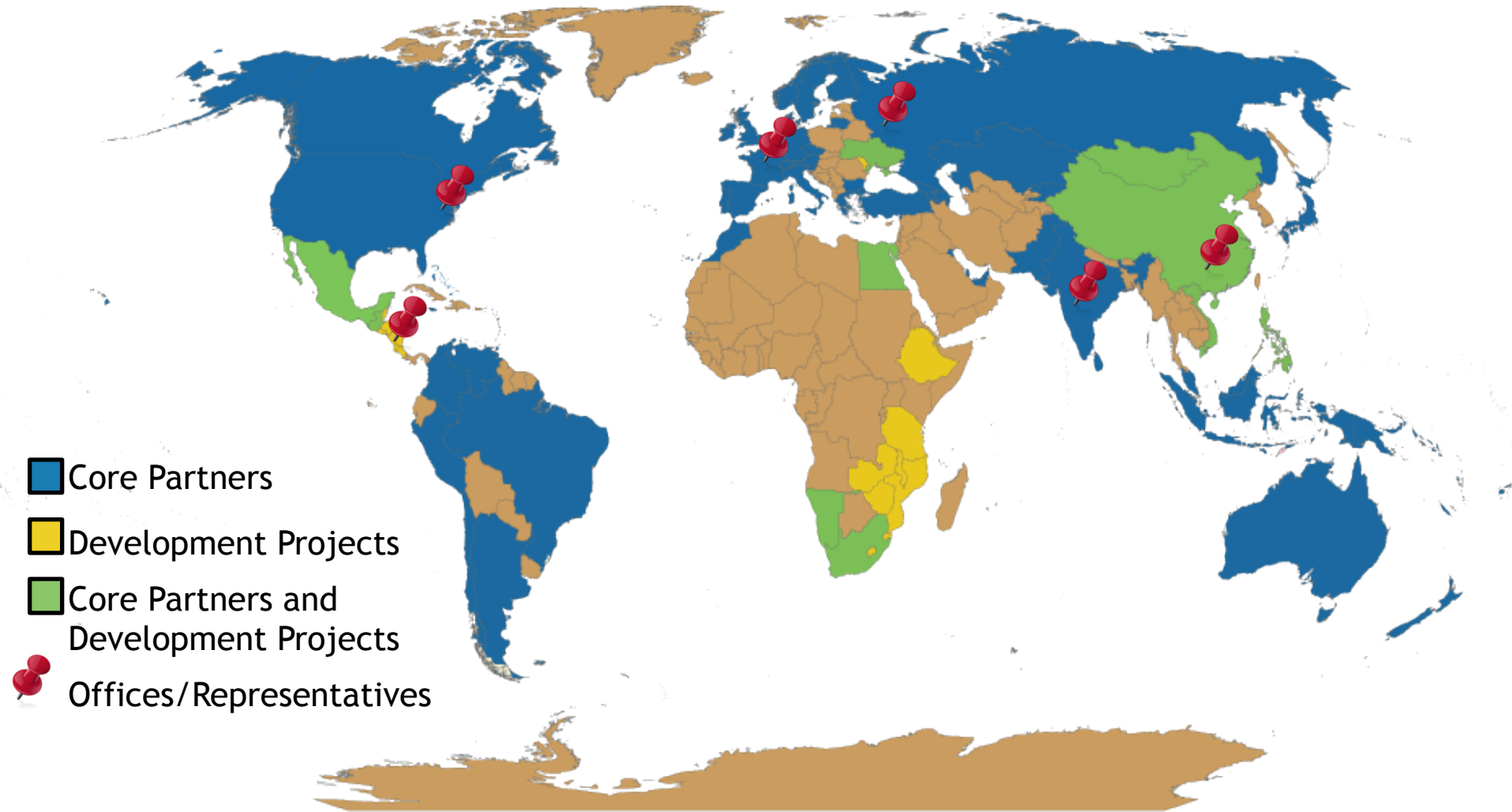


World Food
Logistics
Organization
WFLO
The Refrigeration
Research & Education
Foundation



International
Association for
Cold Storage
Construction

#2 GCCA Global Presence



- Natural refrigerants widely used by U.S. members
- Vast majority use ammonia
 - Preferred for efficiency and economics
- Biggest reason for facilities not using ammonia is government regulation

- Regulatory Examples:
 - OSHA PSM
 - EPA RMP
 - Some state specific
- Requires a proactive approach from industry
- GCCA actively engaged with agencies

- GCCA/OSHA Alliance
- Increased dialogue
- Developing compliance assistance materials
- Fostering industry and agency education



OSHA National Emphasis Program (NEP) – PSM Covered Chemical Facilities: Documentation Checklist*

- ☐ Last two compliance audits
- ☐ Last two Process Hazard Analyses (PHAs) with closure documentation
- ☐ Documentation of PHA communication with employees
- ☐ Action item list for all compliance audit and PHA findings/recommendations
- ☐ Written maintenance procedures for all ammonia refrigeration equipment
- ☐ Piping and equipment inspection documentation
- ☐ Documentation of ammonia detector testing and calibration
- ☐ Current written operating procedures for the ammonia refrigeration process
- ☐ Active hot work program with completed forms
- ☐ Current and accurate piping and instrumentation diagrams (P&ID's)
- ☐ Pipe labeling and valve tagging consistent with P&ID's
- ☐ Completed and active Management of Change forms
- ☐ Completed and active Pre-Startup Safety Review (PSSR) forms
- ☐ Contractor ammonia-related injury and illness log

* This checklist is not inclusive of all potentially required PSM documents, and completing it does not guarantee a successful ChemNEP inspection.

See the text of the NEP on the OSHA website at:

http://www.osha.gov/OshDoc/Directive_pdf/CPL_03-00-014.pdf

For more ammonia safety resources visit the GCCA/OSHA Alliance website at:

<http://www.gcca.org/programs/gcca-osha-alliance.html>

Through its Alliance with OSHA, the Global Cold Chain Alliance developed this checklist for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. March 2013.

MEDIDAS DE SEGURIDAD PARA EL AMONIACO



	SI DETECTA OLOR A AMONIACO	SALGA INMEDIATAMENTE DEL AREA
	SI USTED INHALA AMONIACO	BUSQUE INMEDIATAMENTE AIRE FRESCO Y ATENCION MEDICA SI FUERA NECESARIO
	SI SU PIEL U OJOS TIENEN CONTACTO CON AMONIACO	INMEDIATAMENTE ENJUAGUE CON AGUA EL AREA AFECTADA DURANTE UN MINIMO DE 15 MINUTOS Nota: NO remueva las prendas que han sido expuestas a amoniac liquido hasta que se descongele mediante la aplicacion de agua.
	SI USTED DETECTA UNA FUGA DE AMONIACO	DESALOJE INMEDIATAMENTE EL EDIFICIO O AREA Y DIRIJASE AL AREA DESIGNADA

! EN CUALQUIERA DE LOS CASOS AVISE A SU SUPERVISOR Y SIGA LAS INSTRUCCIONES DEL PLAN DE EMERGENCIA DE LA EMPRESA.

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A través de su alianza con OSHA, GCCA ha desarrollado este póster con propósitos informativos únicamente. No refleja necesariamente los puntos de vista oficiales de OSHA o del Departamento del Trabajo de Estados Unidos. 02/2011

AMMONIA SAFETY



Personal Protective Equipment (PPE) for Refrigeration & Maintenance Technicians

Do you qualify to wear Respiratory PPE?

- Are you medically cleared for respirator / self-contained breathing apparatus (SCBA) use?
- Are you fit tested for the respirator / SCBA that you are assigned?
- Are you trained in use and care of the respirator / SCBA that you are assigned?

Do you know which PPE to wear and when to wear it?

- Follow your facility's Emergency Response Plan
- Consider the potential for exposure in your job tasks
- Never wear PPE unless trained

Typical PPE for Refrigeration & Maintenance Technicians



Rubber Gloves Rubber Apron Hard Hat Respirator Protective Hood Safety Vest

Example of PPE



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- Natural refrigerants widely used by GCCA members
- Preferred for efficiency and economics
- Regulations biggest barrier for greater adoption
- Industry working with agencies to improve understanding and compliance



Thank you!