Kansas Fire & Rescue Training Institute

“Training Firefighters for Kansas Communities.”
GRAIN ENGULFMENT RESCUE TRAINING PROGRAM
(GRAIN RESCUE TRAINING)

A program for:

Kansas Fire Departments
&
Kansas Grain Handling Industry
Who are we?
Kansas Fire & Rescue Training Institute
KU Continuing Education

- Created in 1949 by statute as part of KU (Continuing Education)
- 11 Full-time Staff - 75 Contract Instructors (appx.)
- $1.3 - $1.5 million total budget (appx.):
  - $1,053,678 from Fire Insurance Premium Tax
  - $3-500,000 other sources (grants, contracts & fees)
This program made possible through a cooperative partnership

Concept
Funding
Planning
Training
Purpose

- Train firefighters and grain facility employees how to prevent grain emergencies and perform rescues.
- Firefighters and employees of grain handling facilities train together.
- Firefighters and grain employees learn their:
  - Roles,
  - Responsibilities,
  - Expectations assigned during emergencies.
Program Assumptions

- Maximum class size of 24-35 persons.
- Firefighters and grain company employees train together.
- Fire departments and local grain companies coordinate and cooperate in scheduling joint deliveries.
- No fees for anyone provided target audiences train together.
- Classes solely for grain companies fall outside the scope of this program and require the approval of the Director and are subject to appropriate fees.
- Exceptions only at the discretion of the Director.
Course Content

- Hazards of flowing grain.
- Working together to conduct rescues.
- Regulations, policies, and procedures for employee safety.
- Experience the feeling and restrictions of grain engulfment.
- Proper use of safety and rescue equipment.
- “Issues” encountered during a grain rescue.
- Perform methods of rescue.
- Safe methods of rapid release of grain.
- First aid and care for a victim of engulfment.
- Other hazards - augers, belts, electricity etc.
Course Design

- 8-Hour course
- Part 1 – Classroom
  - Technical info.
  - Awareness level training for everyone. (all employees are welcome to attend – including office staff)
  - Hazards in grain facilities
  - Roles & Responsibilities
  - Prevention
  - Emergency actions – policies and procedures
Course Design (cont.)

- Part 2 – Hands-on
  - Confined space entry – “lock out – tag out” (refresher training)
  - Expose students to the feeling and restrictions of grain engulfment.
  - Use of safety and rescue equipment.
  - Methods of breaching grain bins and grain release.
  - Victim Protection Methods.
  - Problems encountered during grain rescues.
  - Methods of rescue.
Course Schedule (draft)

Morning classroom session

- 0800 - Introduction explanation.
- 0830 - OSHA Regulations, trends in the grain industry, types of engulfment. Hazards, etc...
- 0930 - Bin entry procedures and practices; lock out tag out procedures.
- 1000 - Atmospheric Monitoring, Respiratory hazards of confined spaces, Duties of Entrant, Attendant, Supervisor.
- 1030 - Grain Bin rescue procedures and practices.

Late morning/afternoon hands-on session

- 1100 - Familiarization/operation of equipment and, ropes and knots.
- 1200 - 1300 Lunch.
- 1300 - Group 1: Grain rescues from bin and hopper.
  Group 2: Cutting at the cutting prop.
- 1400 - Group 1: Cutting at the cutting prop.
  Group 2: Grain rescues from bin and hopper.
- 1600 - All groups together for a rescue scenario.
- 1700 - End of Class.
Training Prop

- Trailer ($112,340)
  - 35’ Semi-trailer (5th wheel)
  - Grain Bin, Hopper, and storage compartments
  - Grain dump for unloading.
  - Auger for moving grain between bin & hopper.
  - Self-contained – lighting, power, tools, etc.
  - Flexible for on-site at elevator or FD courses.
  - Halogen area lighting.
  - Funding from grain industry ($90,000) recognized with appropriate signage.
Equipment

- “Rescue tubes” (KC Supply & Liberty Rescue Tube)
- NFPA (and OSHA) approved rescue harnesses & rope
- Ladders (2 - 26' extension)
- Shovels, scoops, buckets, etc.
- Generator & Lights (for night training)
- Rescue mannequin
- Gas monitor
- Metal cutting rescue saw
- Misc. tools and equipment
Delivery Policies

- **Hosting a Class:**
  - Location: FD or grain facility.
  - Requires FD and grain facility cooperation.
  - Class requests without FD participation subject to fees.

- **Scheduling:**
  - FD & grain facilities coordinate suitable date and location.
  - Contact KF&RTI to schedule.
  - FD or grain company may contact (after coordination).
  - Questions are welcome at any time.
Delivery Policies (cont.)

- Local Support:
  - 120 - 160 Bushels of grain provided by local sponsors.
  - Grain returned (undamaged) at end of training.

- Attendance:
  - Kansas fire department members.
  - Grain employees (requires employer sponsorship/assignment)

- Cost:
  - Active Kansas FD members - No fees
  - Co-sponsoring Kansas grain facility employees – No fees*

* Requires cooperation with local FD as per stated in program documentation.

Fee structure is based on funding at the time of implementation and subject to periodic review and modification.
Program Start-up Timelines

Summer 2012

- May 15 (projected): Prop delivery
- May 1, 2012: Announce course and begin taking training requests.
- August 1, 2012: Begin program deliveries.

*Training will be scheduled to accommodate local needs (week-day, week-end, day/evening/night).*