



***Encapsulating Suit Systems
The Total System Concept***



CRITERIA FOR SELECTING PPE "HIGH RISK"

Analyse the immediate problem

Detailed Risk Assessment

Chemical Risk, Air-borne risk

Climatic Conditions

Workplace Limitations

Solutions will be a marriage of risk/cost



The Parameter "Quadrants" of Selection



Respiratory Protection

APR, PAPR

Protection Factor Requirements

Contamination Control Elements

PPE Selection, TYVEK Coveralls, Plastics, Water Repellency etc

Gloves, Boots

Heat Stress Reduction

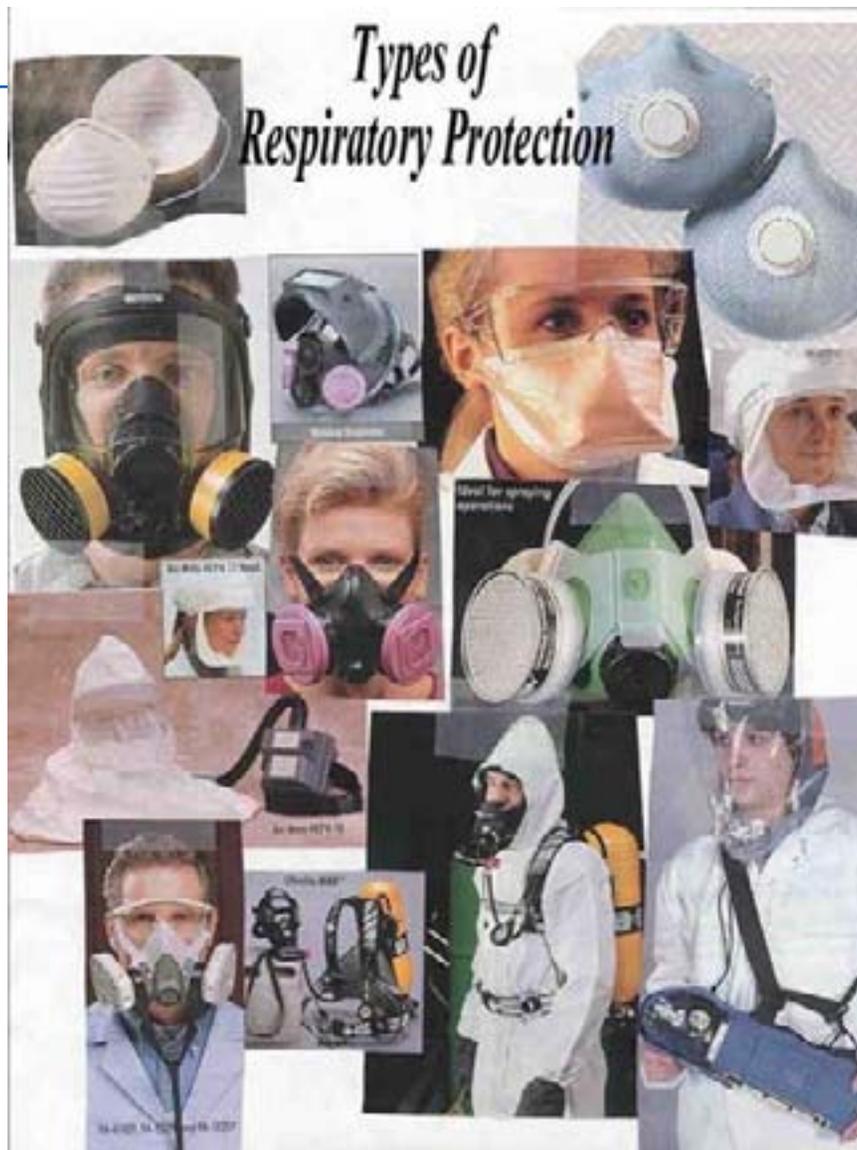
Cool Suits, Air fed Suits, Breathable Garments,

Man Power Efficiency and Safety

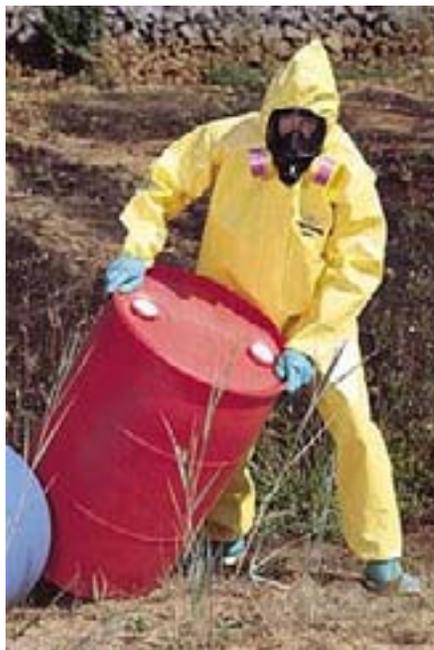
Ergonomics, Speed, Egress



Respiratory Selection Challenges



Typical Method of Selection



The Concept of “Single Unit Systems”



Implement a “total systems solution approach” Based on the marriage of the four (4) distinct quadrants of performance

- 1) Respiratory Protection (less Risk)
- 2) Personal Protective Clothing
- 3) Heat Stress Reduction (full body Cooling)
- 4) Manpower utilization efficiency (eliminate standby rescue person), high speed dress outs



Encapsulating Suit Systems “ The Total Systems Approach



Challenges

- Create a controlled positive pressure environment
- Ergonomics and sizes must be correct
- Lightweight, resistant and mechanically strong fabrics
- Increase mobility
- Create a high visibility window
- Eliminate that “Risky Interface”
- Create the Full Body Cooling Effect” (maximum airflow)
- maximize donning an doffing
- eliminate or reduce personal contamination events
- Emergency Egress Built in Features



Air Fed Encapulating Suit Systems Examples



Air Fed Encapulating Suit Systems Examples



Air Fed Encapulating Suit Systems Examples



Air Fed Encapulating Suit Systems Examples



KENNETH EDDY
in FRHAMs
DELTA SUIT

ROBBIE BATES
in SRSs
currently used
plastic suit





Self Fed Encapsulating Suit Systems Examples



Conclusion for Selection



All products are not what they appear.

Determine the solution that best performs for you.

Single Suit Encapsulation represents the Ultimate Risk Eliminator

Look for Highly engineered products that perform

