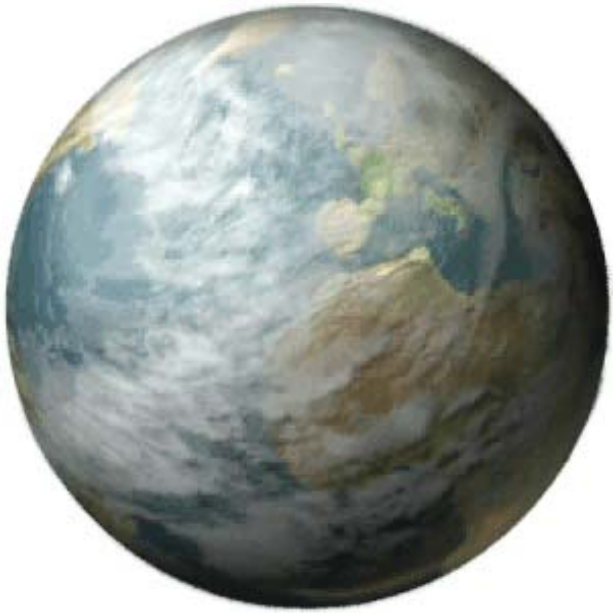
Rinker MATERIALS™



NSSGA's Occupational Health Program

Tom Hethmon

Atlantic Alliance

September 23, 2005

The “Average” U.S. Aggregate Worker

The “Average” U.S. Aggregate Worker

“Have I been affected by potential exposures at work?”

NSSGA S&H Guiding Principles

NSSGA:

- “Advocates that members maintain a strong and unwaiving commitment to safety and health at workplaces.”
- “Urges members to establish safety and health programs that will develop a knowledgeable workforce capable of recognizing, analyzing and avoiding inherent hazards of the crushed stone and sand and gravel work environment.”
- “Pledges to work toward the prevention of all occupational injuries and illnesses.”

Genesis of the NSSGA OHP

- Mandate of NSSGA Board of Directors
- NSSGA Safety & Health Guiding Principles
- Developed by the Industrial Hygiene Subcommittee of the NSSGA Safety & Health Committee
- Multiple peers reviews
- It’s still under development…

Key Principles of the NSSGA OHP

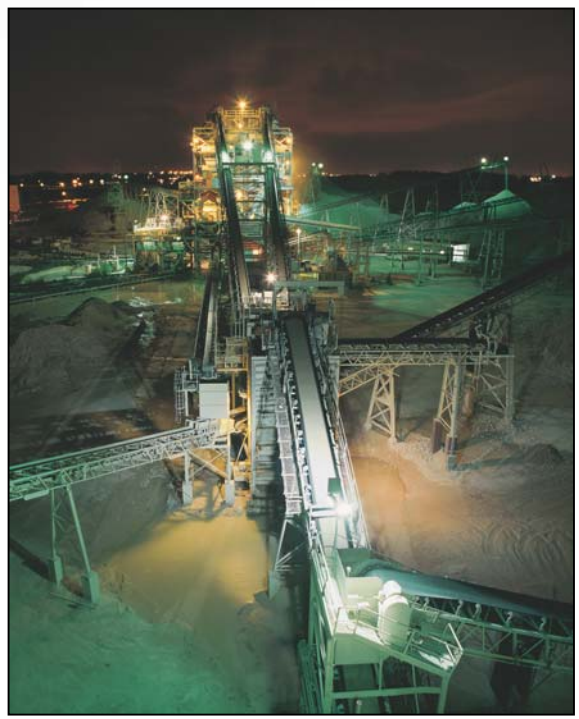
- Voluntary program, strong expectations
- Comprehensive structure, ample direction
- Company-specific implementation
- Not a substitute for MSHA/OSHA compliance

Potential Aggregate Production Hazards

- Respirable crystalline silica
- Nuisance particulates
- Noise
- Welding (& cutting) fumes
- Mineral fibers
- Solvents
- Diesel exhaust
- Temperature stress

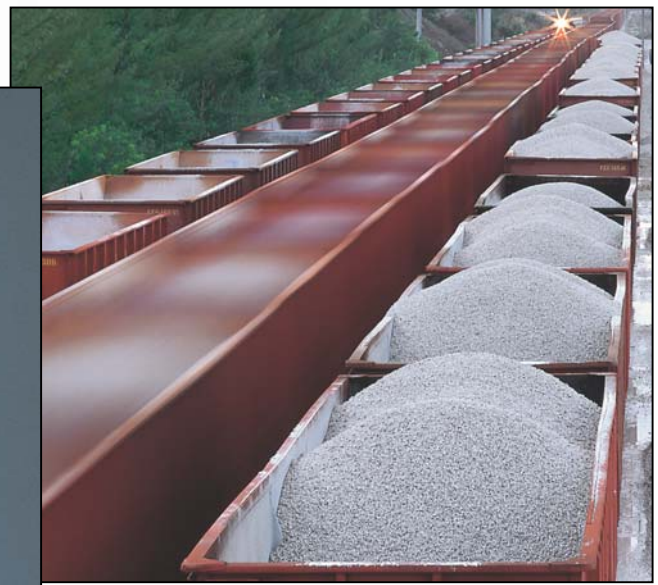
NSSGA OHP Outline

1. Senior management commitment
2. Program communication, promotion & training
3. Exposure assessment
4. Exposure control
5. Medical surveillance
6. Smoking cessation
7. Program evaluation



1. Management Commitment

- Formal declaration of company commitment
- Signed by the highest ranking company officer
- Forwarded to NSSGA



2. Communication, Promotion & Training

- Need to market & communicate to workers
- Need to focus on benefits & concerns:

Prevent the occurrence of occupational illness.

Better manage existing occupational illness.

Identify non-occ. illness currently unknown to the worker.

Improve worker morale.

Improve regulatory compliance.

Improve costs & productivity.

Communication, Promotion & Training

- Need to market & communicate to workers
- Need to focus on benefits & concerns:

"Who will pay for this?"

"Are you doing this to look for drugs and alcohol?"

"Why are you doing this <u>now</u>?"

"What's the union's involvement?"

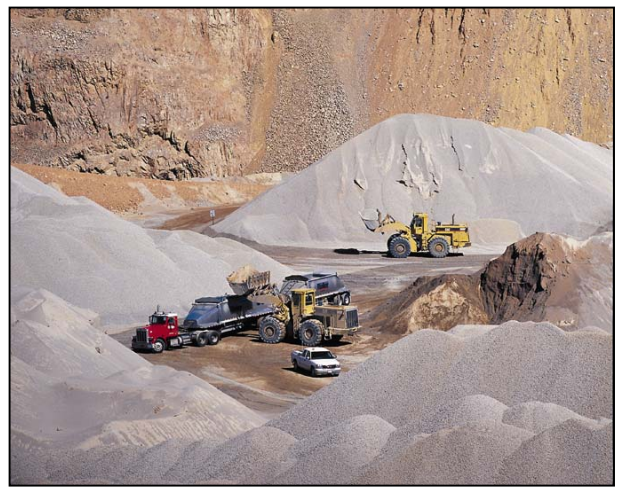
"Who will have access to my data?"

"Will I lose my job if an abnormality is found?"

"Will it hurt…?"

3. Health Hazard Assessment

- Industrial hygiene competencies
- Analytical laboratory selection
- Qualitative exposure assessment
- Quantitative exposure assessment
- Exposure data analysis



Industrial Hygiene Competencies

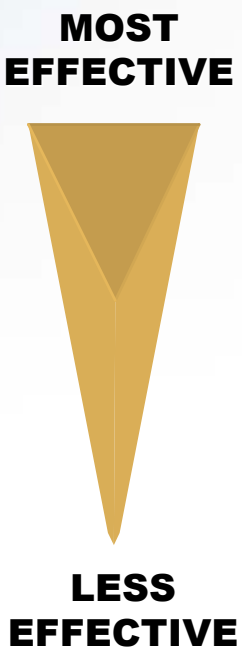
- Level 1: Sampling Technicians
  - NSSGA/MSHA Dust & Noise Workshop graduates
- Level 2: Industrial Hygienists
  - Degreed and non-degreed professionals
- Level 3: Certified Industrial Hygienists
  - CIH, CAIH, ROH, etc
- Resources: Staff, Consultants, Others

Exposure Assessment

- Targeted sampling: Where are the problems?
- Case closing sampling: Is the problem resolved?
- Random sampling: Representative? HEGs?
- Data analysis: Conducted by industrial hygienists

4. Exposure Control Program

- Controls developed based on exposure data
- Hierarchy of controls applied:



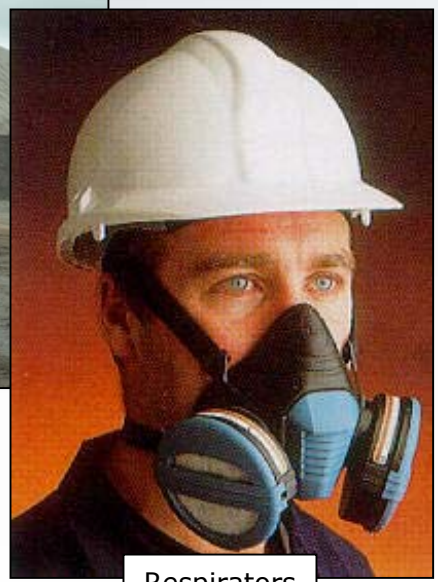
Substitution/elimination

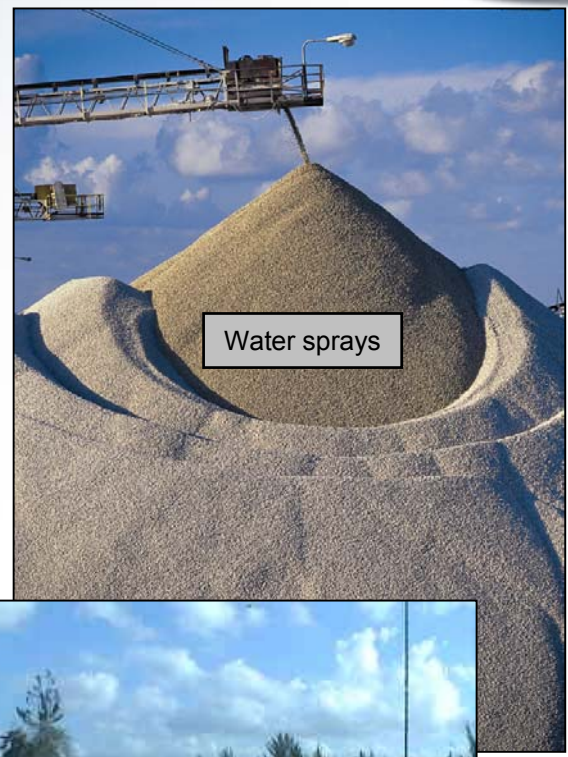
Engineering

Administrative

Personal protective equipment

Exposure Control Program - Dust

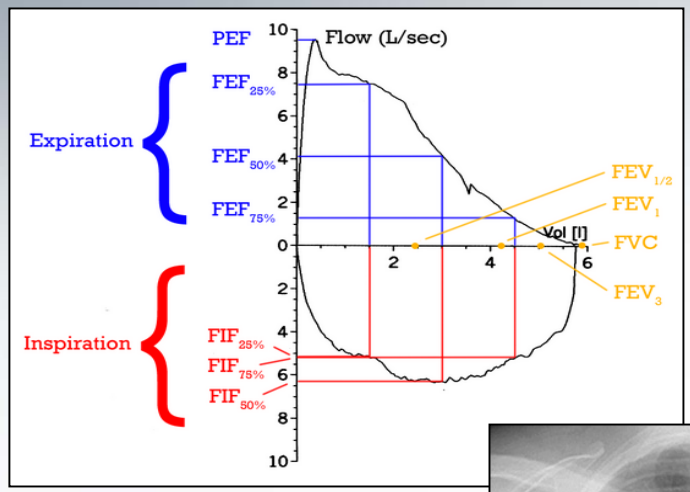


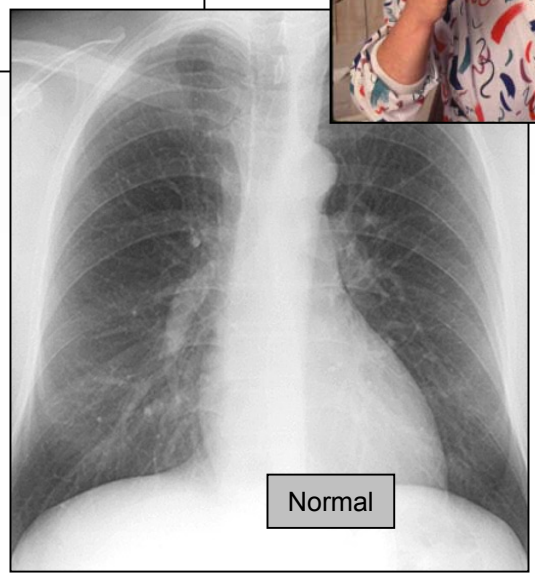


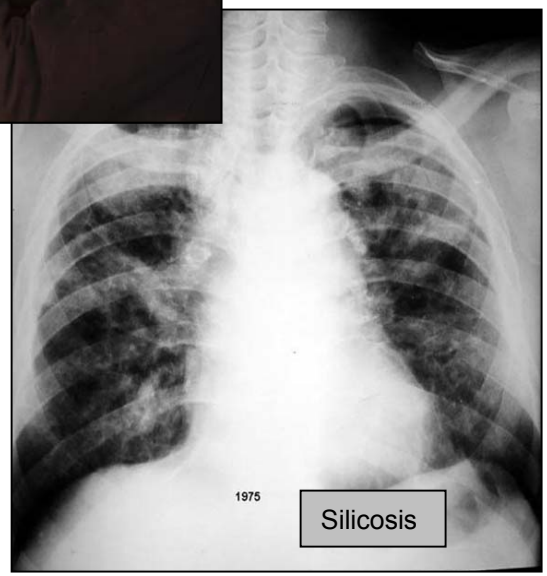
5. Medical Surveillance

- Enrollment based on exposure assessment
- Baseline & periodic medical evaluations
- Emphasis: respiratory & auditory systems
- Clinic selection, test & equipment specification
- Physician & technician qualification
- Data analysis & communication
- Records retention & confidentiality

Respiratory Screening







- PFT
- X-ray
- Work history
- Exposure history
- Physical exam

Auditory Screening

- Audiometric test

Frequency (Hz)	Baseline audiogram threshold (db)	Annual audiogram threshold (dB)	Change
500	5	5	0
1,000	5	5	0
2,000	0	10	+10
3,000	5	20	+15
4,000	10	35	+25
6,000	10	15	+5

6. Smoking Cessation

- Synergistic relationship between smoking, silicosis & tuberculosis.
- Primary contributor to lung cancer, emphysema & chronic bronchitis, chronic obstructive pulmonary disease (COPD).
- Heavily cardiovascular risk factor.
- Interventions: psychological, physiological & sociological $\rightarrow$ education, counseling, medical treatment.

7. OHP Evaluation

- Need to assure on-going effectiveness
- Periodic (annual?) audits
- Potential metrics:
  - % of targeted jobs that have been assessed
  - % of workforce exposed at 50% of applicable OEL
  - % of exposed workforce covered by 1° controls
  - % of workforce with positive medical tests
  - % of workers with non-occupational disease
  - % of smokers who have permanently quit

Next Steps

- Finalize OHP document
- Obtain necessary approvals
- Develop OHP Kits
- Communicate OHP to member companies
- Develop OHP training series
- Implement