

National Personal Protective
Technology Laboratory

**Self Contained Breathing Apparatus
End of Service Life Indicator**

**Roland BerryAnn
Deputy Director**

December 2, 2008

Background – Current Requirements

- 42 CFR 84.83(f) provides warning device/ remaining service-life indicator requirements**
- Indication or alarm required within a range of 20 to 25 percent of rated service time**
- No statement of when device must initiate activation; only that it needs to give an alarm in stated range**
- Initiation prior to 25% has been interpreted as non compliant**
- Duration of alarm can be until depletion of air supply or for only a brief time**

Background – Current Status

- **Petition for rulemaking to change 42 CFR 84.83(f)**
- **Request for change to require alarm no later than a minimum specified value of 20 percent of rated service time**
- **Fire Engineering (June 2004) Journal Article “Expanding Time to Exit for Fire Fighters”**
- **More than 30 docket submissions supporting a minimum requirement only (form letter)**
- **IAFF Resolution from their National Conference supports the change for fire service applications**
- **No submitted docket comments against the proposed change**

Proposed Change

- **Retain 20 percent rated service time as the minimum warning device / remaining service-life indicator alarm point**
- **Each respiratory protection program manager would be allowed to determine the most appropriate alarm setting for that department's needs for SCBA users time to exit a scene**
- **Warning device / remaining service-life indicator performance would still be evaluated by NIOSH for certification**

Input Sought from Stakeholders

Opinions on the current warning device / remaining service-life indicator performance requirement

Opinions on modifying the current warning device / remaining service-life indicator performance requirement from a range to a minimum value:

- Should NIOSH interpret the provision to require the alarm to continue uninterrupted until the minimum value (20%) is reached?
- If the petitioned change is adopted, what tolerance should NIOSH use to evaluate acceptable warning device / remaining service-life indicator performance at a specified setting rather than within a range?
- If the petitioned change is adopted, should NIOSH evaluate warning device / remaining service-life indicator performance at settings other than the 20% minimum? If so, at what additional values?
- Is there a rationale to distinguish Fire Service SCBA from those used for industrial applications for the requirements and evaluation of the warning device / remaining service-life indicator ?

Identification of alternative approaches to address warning device / remaining service-life indicator performance

Other comments on the subject

Open-Circuit, Self-Contained Breathing Apparatus, End of Service Life Indicator

Stakeholder Input can be submitted by

– Mail:

NIOSH Docket Office

Robert A. Taft Laboratories, M/S C 34

Reference: Docket 034A, Open-Circuit, Self-Contained Breathing
Apparatus, End of Service Life Indicator

4676 Columbia Parkway

Cincinnati, OH 45226

– Email: niocindocket@cdc.gov

– Fax: (513) 533-8285

– Phone: (513) 533-8611