

1 From: David Woroner [mailto:survival\_consultants@yahoo.com]  
2 Sent: Wednesday, May 03, 2006 8:00 AM  
3 To: Stone, Robert F - MSHA  
4 Cc: Carl Lovegren; Mike DeLisa  
5 Subject: Woroner, D Survival Consultants, SCSA's  
6 RIN 1219-AB46

7  
8 Dear Sir, Included are my opinions and suggestions at what can be  
9 accomplished in a VERY short time. Best, David Woroner

10  
11 (Dear Mr. Stone)

12  
13 Dear MSHA,

14  
15 My name is David Woroner, President of Survival Consultants International,  
16 LLC.

17  
18 I have been a PADI SCUBA Instructor since 1991.  
19 I have taught a lot of people how to scuba dive. I have worked as a  
20 commercial diver in zero visibility  
21 overhead environments.

22  
23 I wrote a documentary on the history of the Underwater Demolition Teams of  
24 the US Navy  
25 That went into rebreather history and their workings.  
26 From the Lambertson Amphibious Respiratory Unit or the early Seibe  
27 Gorman type devices  
28 Utilized by both the Italians and British. All of the current equipment that  
29 Draeger manufactures is very familiar to me.

30  
31 All of this technology has been around since the 1940's.

32  
33 A (ONE) 1 hour survival pack is, quite frankly in my opinion, useless.

34  
35 For somewhere between 350 to 475 USD (estimated), it would be, with very  
36 little effort, be possible to begin immediate production of multi hour  
37 survivability rebreathers.

38  
39 I also have the ability to call on the MOST knowledgeable persons within this  
40 realm of knowledge. Actually some of the modern pioneers of the technology.

41  
42 C. Self-Contained Self-Rescuers (SCSR)

43

44       SCSRs are devices that provide miners with an MSHA required one hour  
45 of useable oxygen to be used for a mine emergency escape. Currently, SCSRs  
46 rely on two different technologies. One type uses a chemical reaction to  
47 generate oxygen. The other type uses compressed oxygen.  
48 (No “aviation type” burning oxygen generator should EVER be used, ignition  
49 source. DW)

50

51       1. Is there more effective technology to protect miners than the SCSRs  
52 currently available? If so, please describe.

53

54       (Based on 1940's tech. , it is possible to begin almost immediate production  
55 of much higher quality and lower priced units.)(Though the units I am  
56 describing would be up to date obviously.)(The point is that if four units  
57 “failed to operate” at Sago, that's not acceptable. Which goes back to  
58 inspection. Who is going check the gear and repair it, who is responsible in  
59 order.) (The technology is the same. It is simply a question of every miner  
60 having ready access [hip or thigh pouch], as many times cave ins and  
61 entrapments and explosions can cause a miner to lose access immediately to  
62 breathing apparatus). (It must be a part of his “work clothes”.)

63

64       2A Q:. Should an SCSR be developed that provides more than one hour  
65 duration of oxygen?

66

67       2 A A: (This question is moot. Almost nothing can be accomplished within an  
68 hour. If you look at mining accidents, how many miners make it to the  
69 surface within ONE HOUR?)

70

71       2B Q: What duration is feasible considering that miners must carry the SCSR?

72

73       2 B A:(72 hours with the additional QD O2Bottles, and Redundant  
74 Sofnolime.)

75

76       2 C Q: Would it be desirable to require smaller and lighter SCSRs with less  
77 oxygen capacity to be worn on miner's belts while at the same time requiring  
78 longer duration SCSRs to be stored in caches?

79

80       2 C A:(Best of both worlds, SCSR +Spare O2 & Sofnolime in thigh bags) +  
81 (Caches for extended duration events + redundant spare SCSR's @ Cache.)

82

83       3 A Q: MSHA standards require each mine operator to make available an  
84 approved SCSR device or devices to each miner.

85

86       3 A A: (They should always be mounted in an appropriate place such as a

87 thigh pouch)  
88 (This should be MANDATED · LAW)

89  
90 3 B Q: Should mines be required to maintain underground caches of SCSRs  
91 for miners to use during an emergency, or should each miner have access to  
92 more than one SCSR?

93  
94 3 B A: (SCCRS should be worn/ pouch, and multiple QD O2 Bottles &  
95 Sofnolime Canisters SHOULD BE a LEGAL MANDATE in Caches.)(In the  
96 world of SCUBA, which is NO different, redundancy is second nature and a  
97 major key to survival.)

98  
99 4 A Q: · SCSRs are currently required to be inspected at designated intervals  
100 pursuant to 30 CFR 75.1714-. Should SCSRs be inspected more frequently  
101 than the current requirements?

102 4 A A: (It depends on what system is deployed)[however, five years · is much  
103 too long by comparison to the SCUBA industry which requires yearly  
104 inspections, minimum.]

105 5. SCSR service life · is determined by MSHA, NIOSH and the device's  
106 manufacturer. The service life can range from ten to fifteen years depending  
107 on the type of SCSR. Should the service life of SCSRs be reduced to five years  
108 or a different time limit? [ABSOLUTLY](And all SCSRs should be maintained  
109 @ least once every two years)

110  
111 A total SCSR, with additional oxygen quick detach bottles and additional  
112 sofnolime can be carried in a thigh type bag and donned in less than 30  
113 seconds, would be able to utilize multiple oxygen caches bottles.  
114 Able to change out sofnolime canisters or pellets within 1 minute.

115

116

117

118

119

120 Sincerely, David Woroner,  
121 Pres. Survival Consultants International, LLC.

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123 Palm Beach, Florida 33411

124 954 615 7369

125

126 cc:DeLisa

127 Lovegren

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130  
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