

Resolution No. 51
COMMITTEE ASSIGNMENT: Health & Safety
Re: Fireground Access to Cyanide Antidote

1 WHEREAS, the International Association of Fire
2 Fighters (IAFF) is committed to protecting the
3 health, safety, and lives of civilians and professional
4 fire fighters; and

5 WHEREAS, US per capita fire related mortality
6 trends have risen 27% per million population from
7 2014 to 2023 and accounted for over 38,000 deaths;
8 and

9 WHEREAS, smoke inhalation and burns (49%)
10 and smoke inhalation alone (35%) are the leading
11 cause of US fire related civilian fatalities; and

12 WHEREAS, according to U.S. Fire
13 Administration data from 2014 to 2023, the number
14 of residential fires decreased 6% but the incidents of
15 residential fire civilian mortality increased 5%; and

16 WHEREAS, during the past 50 years, modern
17 structure fires increasingly involve materials and
18 furnishings comprised of synthetic polymers, which
19 when exposed to the rapidly rising heat of fire, emit
20 lethal concentrations of the highly toxic asphyxiant
21 hydrogen cyanide; and

22 WHEREAS, hydrogen cyanide is thirty-five times
23 deadlier than carbon monoxide and is the principal
24 toxin responsible for rapid asphyxia incapacitation
25 and fire-related deaths; and

26 WHEREAS, according to data from the U.S. Fire

27 Administration's National Fire Incident Reporting
28 System (NFIRS), smoke inhalation related fireground
29 injuries among career firefighters increased from
30 14% during 2014-2019 to 33% during 2018-2022,
31 and smoke inhalation has now become the leading
32 primary symptom of fireground injuries among
33 career firefighters (~6,100 annually); and

34 WHEREAS, smoke inhalation and asphyxiation
35 are leading causes of firefighter line-of-duty deaths in
36 interior structure fires, including incidents in which
37 firefighters become trapped during firefighting
38 operations. According to the National Fire Protection
39 Association analysis of interior structure fire
40 fatalities from 1998 through 2022, revealed that 139
41 of these fatalities, or almost half (48%), are due to
42 asphyxiation or smoke inhalation; and

43 WHEREAS, a recent 2022 IAFF member Line-
44 of-Duty Death After-Action Report and Improvement
45 Plan recommendation identified the need for the
46 department to, "develop a new policy for the
47 deployment of Cyanokit® (the cyanide antidote) on
48 Battalion Chief vehicles to have them readily
49 available on all fire scenes", citing delayed access to
50 the cyanide antidote as a contributing factor in the
51 incident. The department quickly instituted a policy
52 to address the identified deficiency and
53 recommendation; and

54 WHEREAS, acute exposure to hydrogen cyanide
55 assaults the heart, brain and thyroid, causing illness,
56 disease, neurological disorders and cardiac-related
57 fatalities within minutes; and the toxic effects are

58 often rapid, making early recognition and antidote
59 treatment at the fireground essential to prevent
60 irreversible injury or death; and

61 WHEREAS, a validated clinical study reported an
62 overall survival rate of 67% among a group of
63 smoke-inhalation victims who received the cyanide
64 antidote prehospital. The victims in this study all had
65 a confirmed diagnosis of cyanide poisoning and had
66 been exposed to products of combustion; and

67 WHEREAS, a retrospective survey of fire-victim
68 rescues conducted between 2016 and 2024 reported
69 that victims who were unconscious at the time of
70 rescue but who received a cyanide antidote at the
71 fireground, experienced a 36% higher survival rate
72 than those who did not receive the antidote at the
73 fireground; and

74 WHEREAS, the Fire Department of the City of
75 New York (FDNY), the District of Columbia Fire
76 and Emergency Medical Services Department
77 (DCFD), and the Houston Fire Department (HFD)
78 have all reported fireground administration of a
79 cyanide antidote to firefighter victims of smoke
80 inhalation, resulting in favorable survival outcomes;
81 and

82 WHEREAS, according to a 2017 survey of U.S.
83 EMS providers and related data analysis regarding
84 prehospital cyanide antidote practices, none of the
85 reporting agencies had protocols requiring/ensuring
86 fireground access to the cyanide antidote and only
87 20% of the agencies included any reference to
88 cyanide antidote in their protocols; and

89 WHEREAS, data from a leading Fire/EMS
90 electronic patient care report platform from January
91 2017 through September 2025, identified 99,108
92 patients with severe smoke inhalation. Despite the
93 number of patients with severe smoke inhalation,
94 over 70% of Fire/EMS departments within the
95 dataset reported not having access to the cyanide
96 antidote approved for the treatment of smoke
97 inhalation; and

98 WHEREAS, numerous European nations such as
99 France, Sweden, Germany, Austria, Finland,
100 Belgium, and Australia have, for over a decade,
101 established and maintained EMS protocols that
102 provide for fireground access to the cyanide antidote
103 approved for the treatment of smoke inhalation
104 victims; and

105 WHEREAS, several Canadian provinces,
106 including British Columbia, Ontario, Nova Scotia,
107 and Alberta, have expanded paramedic scopes of
108 practice to authorize the use of an approved cyanide
109 antidote for smoke inhalation victims, enabling Fire/
110 EMS service municipalities to implement fireground
111 access protocols; therefore be it

112 RESOLVED, That the IAFF formally recognizes
113 hydrogen cyanide exposure is a significant and
114 increasing occupational hazard in modern fire
115 suppression and rescue operations; and be it further

116 RESOLVED, That the IAFF supports and
117 advocates for immediate fireground access to cyanide
118 antidotes for firefighters and civilian victims, to
119 improve the chances of survival; and be it further

120 RESOLVED, That the IAFF urges fire
121 departments, medical directors, governing
122 authorities, and other national fire service
123 organizations to increase cyanide toxicity education,
124 training, and policy development to ensure
125 fireground access necessary for the timely
126 identification and administration of a cyanide
127 antidote at fire incidents, recognizing that such
128 timely access could provide the best chance to save
129 the lives of firefighters and the public we serve.

Submitted by: Michigan Professional Fire Fighters Union,
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Professional Fire Fighters

Cost Estimate: **None**

Annual or Perpetual Designation: **N/A**

COMMITTEE RECOMMENDATION:

CONVENTION ACTION: