

As Introduced

134th General Assembly

Regular Session

2021-2022

H. B. No. 235

Representatives Swearingen, Baldrige

Cosponsors: Representatives Edwards, Ghanbari, Stephens, Cutrona, Jones, Plummer, Troy, Johnson, White, Click, Ray, Patton, Abrams, Manning, Callender, Loychik, Fraizer, Hillyer, Stewart, Sheehy, Sobecki, Sweeney, Kelly, Galonski

A BILL

To amend sections 121.083 and 121.084 and to enact 1
sections 4145.01, 4145.02, 4145.03, 4145.04, 2
4145.05, 4145.06, 4145.07, 4145.08, 4145.09, 3
4145.10, 4145.11, and 4145.12 of the Revised 4
Code to enact the High Hazard Training 5
Certification (HHTC) Act regarding construction 6
services performed under a contract at a 7
stationary source. 8

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF OHIO:

Section 1. That sections 121.083 and 121.084 be amended 9
and sections 4145.01, 4145.02, 4145.03, 4145.04, 4145.05, 10
4145.06, 4145.07, 4145.08, 4145.09, 4145.10, 4145.11, and 11
4145.12 of the Revised Code be enacted to read as follows: 12

Sec. 121.083. (A) The superintendent of industrial 13
compliance in the department of commerce shall do all of the 14
following: 15

(1) Administer and enforce the general laws of this state 16

pertaining to buildings, pressure piping, boilers, bedding, 17
upholstered furniture, and stuffed toys, steam engineering, 18
elevators, plumbing, licensed occupations regulated by the 19
department, and travel agents, as they apply to plans review, 20
inspection, code enforcement, testing, licensing, registration, 21
and certification. 22

(2) Exercise the powers and perform the duties delegated 23
to the superintendent by the director of commerce under Chapters 24
4109., 4111., ~~and 4115.~~, and 4145. of the Revised Code. 25

(3) Collect and collate statistics as are necessary. 26

(4) Examine and license persons who desire to act as steam 27
engineers, to operate steam boilers, and to act as inspectors of 28
steam boilers, provide for the scope, conduct, and time of such 29
examinations, provide for, regulate, and enforce the renewal and 30
revocation of such licenses, inspect and examine steam boilers 31
and make, publish, and enforce rules and orders for the 32
construction, installation, inspection, and operation of steam 33
boilers, and do, require, and enforce all things necessary to 34
make such examination, inspection, and requirement efficient. 35

(5) Rent and furnish offices as needed in cities in this 36
state for the conduct of its affairs. 37

(6) Oversee a chief of construction and compliance, a 38
chief of operations and maintenance, a chief of licensing and 39
certification, a chief of worker protection, and other designees 40
appointed by the director to perform the duties described in 41
this section. 42

(7) Enforce the rules the board of building standards 43
adopts pursuant to division (A)(2) of section 4104.43 of the 44
Revised Code under the circumstances described in division (D) 45

of that section. 46

(8) Accept submissions, establish a fee for submissions, 47
and review submissions of certified welding and brazing 48
procedure specifications, procedure qualification records, and 49
performance qualification records for building services piping 50
as required by section 4104.44 of the Revised Code. 51

(B) The superintendent may enter into a contract with a 52
municipal corporation, township, or county building department 53
certified by the board of building standards pursuant to 54
division (E) of section 3781.10 of the Revised Code, or a 55
municipal or county health district, to do any of the following 56
on behalf of the building department or health district: 57

(1) Exercise enforcement authority pursuant to section 58
3781.03 of the Revised Code; 59

(2) Accept and approve plans and specifications, and make 60
inspections, pursuant to section 3791.04 of the Revised Code; 61

(3) Enforce the rules adopted pursuant to division (A) (2) 62
of section 4104.43 of the Revised Code. 63

Sec. 121.084. (A) All moneys collected under sections 64
3783.05, 3791.07, 4104.07, 4104.18, 4104.44, 4105.17, 4105.20, 65
4145.09, 4169.03, and 5104.051 of the Revised Code, and any 66
other moneys collected by the division of industrial compliance 67
shall be paid into the state treasury to the credit of the 68
industrial compliance operating fund, which is hereby created. 69
The department of commerce shall use the moneys in the fund for 70
paying the operating expenses of the division and the 71
administrative assessment described in division (B) of this 72
section. 73

(B) The director of commerce, with the approval of the 74

director of budget and management, shall prescribe procedures 75
for assessing the industrial compliance operating fund a 76
proportionate share of the administrative costs of the 77
department of commerce. The assessment shall be made in 78
accordance with those procedures and be paid from the industrial 79
compliance operating fund to the division of administration fund 80
created in section 121.08 of the Revised Code. 81

Sec. 4145.01. As used in this chapter: 82

(A) "Apprentice" means a person who is participating in a 83
registered apprenticeship program to learn a skilled occupation 84
pursuant to a registered apprenticeship agreement as defined in 85
section 4139.01 of the Revised Code or 29 C.F.R. 29.2. 86

(B) "Construction" means all service performed at a 87
stationary source, including maintenance, repair, assembly, 88
disassembly, alteration, demolition, modernization, and 89
installation services. 90

(C) "Contractor" means any person who undertakes 91
construction at a stationary source under a contract with an 92
owner or operator. 93

(D) "Owner or operator" means a person who owns or 94
operates a stationary source at which the person engages in 95
activities described in code 324110 of the 2017 north American 96
industry classification system and at which the person engages 97
in one or more covered processes for which the person is 98
required to prepare and submit a risk management plan under the 99
"Clean Air Act," 42 U.S.C. 7412. "Owner or operator" does not 100
include a person who controls the means of engaging in oil and 101
gas extraction operations. 102

(E) (1) "Registered apprenticeship program" means any of 103

the following programs: 104

(a) A program that trains an individual for a trade or 105
occupation through paid on-the-job training and related 106
instruction that is registered with the United States department 107
of labor as meeting the minimum standards established by the 108
"National Apprenticeship Act of 1937," 29 U.S.C. 50, and 29 109
C.F.R. Part 29, Subpart A; 110

(b) An apprenticeship program registered by the department 111
of job and family services under Chapter 4139. of the Revised 112
Code; 113

(c) An apprenticeship program registered by the state 114
apprenticeship agency of another state that has been authorized 115
to register apprenticeship programs for federal purposes under 116
the laws of that state. 117

(2) "Registered apprenticeship program" may include any 118
apprenticeship program subject to the "Employee Retirement 119
Income Security Act of 1974," 29 U.S.C. 1001, et seq., as 120
amended or an apprenticeship program supported through an 121
employer's general funds. 122

(3) "Registered apprenticeship program" does not include 123
an industry-recognized apprenticeship program as described under 124
29 C.F.R. Part 29, Subpart B. 125

(F) "Class A skilled journeyman" means an individual 126
who satisfies the requirements of division (A) of section 127
4145.02 of the Revised Code. 128

(G) "Class B skilled journeyman" means an individual 129
who satisfies the requirements of division (B) of section 130
4145.02 of the Revised Code. 131

(H) "State apprenticeship agency" means the state 132
government agency that is authorized by the United States 133
department of labor to register and oversee apprenticeship 134
programs in the state. 135

(I) (1) "Stationary source" means any building, structure, 136
facility, or installation that emits or may emit any regulated 137
air pollutant or any pollutant listed under the "Clean Air Act," 138
42 U.S.C. 7412, except those emissions resulting directly from 139
an internal combustion engine for transportation purposes or 140
from a nonroad engine or nonroad vehicle as defined in the 141
"Clean Air Act," 42 U.S.C. 7550. 142

(2) "Stationary source" includes any building, structure, 143
facility, or installation described in division (I) (1) of this 144
section that is offline for an indefinite period of time for 145
purposes of being revamped or renewed. 146

(J) "Subcontractor" means any person who undertakes 147
construction at a stationary source under a contract with any 148
person other than an owner or operator. 149

Sec. 4145.02. (A) An individual shall do both of the 150
following to be considered a class A skilled journeyman: 151

(1) Graduate from a registered apprenticeship program; 152

(2) Complete a thirty-hour training course in safety and 153
health hazard recognition and prevention approved by the 154
occupational safety and health administration of the United 155
States department of labor. 156

(B) An individual shall do both of the following to be 157
considered a class B skilled journeyman: 158

(1) Acquire at least ten thousand hours of experience in 159

the occupation or trade in which the individual is providing or 160
assigned to provide construction services at a stationary 161
source; 162

(2) Complete a thirty-hour training course in safety and 163
health hazard recognition and prevention approved by the 164
occupational safety and health administration of the United 165
States department of labor. 166

Sec. 4145.03. (A) An owner or operator that enters into a 167
contract on and after the effective date of this section for 168
construction services at a stationary source shall do both of 169
the following: 170

(1) Engage only a contractor that complies with division 171
(B) of this section; 172

(2) Require, in the contract that the owner or operator 173
enters into with the contractor, that the contractor shall use, 174
with respect to any subcontractor needed for the contract, a 175
subcontractor that complies with division (B) of this section. 176

(B)(1) Except as provided in division (B)(4) of this 177
section, a contractor that provides construction services at a 178
stationary source pursuant to a contract entered into on and 179
after the effective date of this section with an owner or 180
operator, and a subcontractor that provides construction 181
services with respect to that contract on behalf of the 182
contractor, shall use only the following individuals: 183

(a) Class A skilled journeypersons; 184

(b) Class B skilled journeypersons; 185

(c) Apprentices. 186

(2) The contractor or subcontractor shall follow the 187

following implementation schedule regarding the proportion of 188
the contractor's or subcontractor's employees performing those 189
construction services who shall be class A skilled 190
journeypersons, apprentices, or both: 191

(a) Beginning on January 1, 2022, at least forty-five per 192
cent; 193

(b) Beginning on January 1, 2023, at least sixty-five per 194
cent; 195

(c) Beginning on January 1, 2024, at least eighty per 196
cent. 197

(3) The contractor or subcontractor shall employ class B 198
skilled journeypersons for the remaining portion of the 199
contractor's or subcontractor's employees performing 200
construction services who are not required to be class A skilled 201
journeypersons or apprentices pursuant to division (B)(2) of 202
this section. 203

(4) An individual employed by a contractor or 204
subcontractor is not required to be a class A or class B skilled 205
journeyperson or apprentice pursuant to division (B)(1) of this 206
section if both of the following apply: 207

(a) The individual is employed as a project 208
superintendent, project manager, engineer, or clerical employee; 209

(b) The individual does not perform construction services. 210

(C)(1) Divisions (A) and (B) of this section do not apply 211
under either of the following circumstances: 212

(a) When a contractor or subcontractor requests qualified 213
individuals from a hiring hall or referral system that 214
dispatches individuals who are class A or class B skilled 215

journeypersons or apprentices, and because of workforce 216
shortages, the contractor or subcontractor is unable to obtain 217
sufficient qualified individuals within forty-eight hours after 218
the request; 219

(b) An emergency during or after which compliance is 220
impracticable, including an emergency that requires immediate 221
action to prevent imminent harm to public health, public safety, 222
or the environment. 223

(2) For purposes of division (C) (1) (a) of this section, 224
Saturdays, Sundays, and legal holidays shall not be used in 225
calculating time. 226

Sec. 4145.04. If an owner or operator believes that a 227
contractor or subcontractor is failing or has failed to comply 228
with the implementation schedule established under division (B) 229
of section 4145.03 of the Revised Code, the owner or operator 230
shall, not later than seven days after the date on which the 231
owner or operator first believes a contractor or subcontractor 232
is failing or has failed to comply with the implementation 233
schedule, provide written notice of the alleged noncompliance to 234
the director of commerce, and shall include both of the 235
following in the notice: 236

(A) A summary that describes the contractor's or 237
subcontractor's alleged noncompliance, including the applicable 238
dates of noncompliance and degree to which the contractor or a 239
subcontractor has allowed the proportion of the contractor's or 240
subcontractor's employees performing construction services to 241
deviate from the implementation schedule; 242

(B) The corrective actions, if any, that the owner or 243
operator has taken to ensure the contractor or subcontractor is 244

complying with the implementation schedule, and the date by 245
which the owner or operator expects the contractor or 246
subcontractor to comply with the implementation schedule. 247

Sec. 4145.05. (A) Each contractor and subcontractor 248
subject to section 4145.03 of the Revised Code shall maintain 249
the following records for a period of not less than three years 250
after the date on which construction services under the contract 251
have been completed: 252

(1) Payroll records for all individuals who performed 253
construction services; 254

(2) Apprenticeship records; 255

(3) Copies of the reports that each contractor and 256
subcontractor is required to submit under sections 4145.06 and 257
4145.07 of the Revised Code. 258

(B) The director of commerce or attorney general may 259
request to inspect the records described in division (A) of this 260
section at any time during the time period described in that 261
division. A contractor or subcontractor shall make the records 262
available not later than seven days from the date the director 263
or attorney general makes a request under this division. 264

Sec. 4145.06. (A) A contractor subject to section 4145.03 265
of the Revised Code shall prepare a compliance report at the end 266
of each calendar quarter during which the contractor provided 267
construction services at a stationary source. The contractor 268
shall submit each report to the director of commerce not later 269
than thirty days after the date on which the calendar quarter 270
ends. The contractor shall submit a final report to the director 271
not later than thirty days after construction services under the 272
contract are completed. The contractor shall include in each 273

<u>report all of the following information with respect to that</u>	274
<u>calendar quarter:</u>	275
<u>(1) The name and address of the contractor;</u>	276
<u>(2) The name and title of the individual preparing the</u> <u>report on behalf of the contractor;</u>	277 278
<u>(3) The name and address of the owner or operator of the</u> <u>stationary source at which construction services were performed;</u>	279 280
<u>(4) The name of the project and project number, if any;</u>	281
<u>(5) The total dollar value of the contract;</u>	282
<u>(6) The name and address of all subcontractors involved in</u> <u>providing construction services at the stationary source;</u>	283 284
<u>(7) The total number of class A and class B skilled</u> <u>journeypersons and apprentices who performed construction</u> <u>services;</u>	285 286 287
<u>(8) The name and address of each registered apprenticeship</u> <u>program from which class A skilled journeypersons graduated and</u> <u>each registered apprenticeship program that provided training to</u> <u>apprentices;</u>	288 289 290 291
<u>(9) Certification that the contractor has complied with</u> <u>division (B) of section 4145.03 of the Revised Code;</u>	292 293
<u>(10) All of the following:</u>	294
<u>(a) The total number of class A skilled journeypersons who</u> <u>performed construction services;</u>	295 296
<u>(b) The total number of class B skilled journeypersons who</u> <u>performed construction services;</u>	297 298
<u>(c) The total number of apprentices who performed</u>	299

<u>construction services;</u>	300
<u>(d) The numbers described in divisions (A) (10) (a) to (c)</u>	301
<u>of this section represented as a per cent of the total number of</u>	302
<u>class A and class B skilled journeypersons and apprentices who</u>	303
<u>performed construction services.</u>	304
<u>(B) At the time a contractor submits a report to the</u>	305
<u>director under division (A) of this section, the contractor</u>	306
<u>shall provide a copy of the report to the owner or operator of</u>	307
<u>the stationary source at which the contractor is providing</u>	308
<u>construction services.</u>	309
<u>Sec. 4145.07. Each subcontractor subject to section</u>	310
<u>4145.03 of the Revised Code shall prepare a workforce report at</u>	311
<u>the end of each calendar quarter during which the subcontractor</u>	312
<u>provided construction services at a stationary source. The</u>	313
<u>subcontractor shall submit each report to the contractor not</u>	314
<u>later than ten days after the date on which the calendar quarter</u>	315
<u>ends. The subcontractor shall include in each report all of the</u>	316
<u>following information regarding individuals who performed</u>	317
<u>construction services during that calendar quarter:</u>	318
<u>(A) The total number of class A and class B skilled</u>	319
<u>journeypersons and apprentices who performed construction</u>	320
<u>services;</u>	321
<u>(B) The total number of class A skilled journeypersons and</u>	322
<u>apprentices who performed construction services;</u>	323
<u>(C) The total number of class B skilled journeypersons who</u>	324
<u>performed construction services and the means by which the</u>	325
<u>subcontractor verified that each class B skilled journeyperson</u>	326
<u>has satisfied the experience requirement under division (B) (1)</u>	327
<u>of section 4145.02 of the Revised Code;</u>	328

(D) The name and address of each registered apprenticeship program from which class A skilled journeypersons graduated and each registered apprenticeship program that provided training to apprentices. 329
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Sec. 4145.08. (A) No owner or operator shall do any of the following: 333
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(1) Fail to comply with division (A) of section 4145.03 of the Revised Code; 335
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(2) Fail to comply with the notice requirement under section 4145.04 of the Revised Code within the time period specified in that section; 337
338
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(3) Submit a written notice as described under section 4145.04 of the Revised Code that includes false or inaccurate information. 340
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(B) No contractor or subcontractor shall do any of the following: 343
344

(1) Fail to comply with division (B) of section 4145.03 of the Revised Code; 345
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(2) Fail to maintain the records specified in section 4145.05 of the Revised Code for the time period specified in that section; 347
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(3) Fail to make available the records specified in section 4145.05 of the Revised Code within the time period specified in that section; 350
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(4) Fail to comply with the reporting requirements under sections 4145.06 and 4145.07 of the Revised Code; 353
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(5) Submit a report under section 4145.06 or 4145.07 of 355

the Revised Code that includes false or inaccurate information. 356

Sec. 4145.09. (A) Any person who believes an owner or 357
operator, contractor, or subcontractor has violated section 358
4145.08 of the Revised Code may file a written complaint with 359
the director of commerce. On receiving a complaint, the director 360
may investigate the alleged violation. The director also may 361
investigate whether an owner or operator, contractor, or 362
subcontractor has violated section 4145.08 of the Revised Code 363
on the director's own initiative. 364

(B) (1) If the director determines after an investigation 365
that reasonable grounds exist that an owner or operator, 366
contractor, or subcontractor has violated section 4145.08 of the 367
Revised Code, the director shall proceed in accordance with the 368
notice and hearing requirements prescribed in Chapter 119. of 369
the Revised Code. 370

(2) After a hearing conducted under Chapter 119. of the 371
Revised Code, if the director determines an owner or operator, 372
contractor, or subcontractor has violated section 4145.08 of the 373
Revised Code, the director shall order the offending owner or 374
operator, contractor, or subcontractor to remedy the violation. 375
The offending owner or operator, contractor, or subcontractor 376
shall remedy the violation not later than thirty days after the 377
date on which the director issues the order. 378

(C) An offending owner or operator, contractor, or 379
subcontractor that fails to remedy a violation within the time 380
period specified in division (B) (2) of this section is subject 381
to the civil penalty specified in section 4145.10 of the Revised 382
Code. The attorney general, on behalf of the director, may bring 383
a civil action in any court of competent jurisdiction to enforce 384
the violation. If the attorney general is the prevailing party 385

in a civil action brought under this division, the court shall 386
award to the attorney general court costs and reasonable 387
attorney's fees. A civil penalty assessed under section 4145.10 388
of the Revised Code and any court costs and attorney's fees 389
recovered shall be paid into the state treasury to the credit of 390
the industrial compliance operating fund created under section 391
121.084 of the Revised Code. 392

Sec. 4145.10. Subject to section 4145.09 of the Revised 393
Code, an owner or operator, contractor, or subcontractor that 394
violates section 4145.08 of the Revised Code is subject to a 395
civil penalty of not more than ten thousand dollars for each 396
violation. Each day during which a violation of division (A)(1) 397
or (B)(1) of section 4145.08 of the Revised Code occurs 398
constitutes a separate violation. 399

Sec. 4145.11. (A) The director of commerce may adopt rules 400
in accordance with Chapter 119. of the Revised Code as necessary 401
to administer and enforce this chapter. 402

(B) The director shall do both of the following: 403

(1) Create and make available a form on which a contractor 404
shall include the information specified in section 4145.06 of 405
the Revised Code; 406

(2) Make publicly available on the department of 407
commerce's internet web site each compliance report a contractor 408
submits to the director under section 4145.06 of the Revised 409
Code not later than thirty days after the date on which the 410
contractor submits the report to the director. 411

Sec. 4145.12. The purpose of this chapter is to protect 412
public health and safety by requiring minimum training and skill 413
standards for persons performing construction services on 414

certain high hazard facilities where inferior or faulty work 415
practices can pose serious risks to the public and result in 416
potentially catastrophic consequences. 417

Section 2. That existing sections 121.083 and 121.084 of 418
the Revised Code are hereby repealed. 419

Section 3. This act shall be known as the High Hazard 420
Training Certification (HHTC) Act. 421

Section 4. The General Assembly finds the following: 422

(A) The General Assembly has long recognized our State 423
Government's duty to protect the public health, safety and 424
welfare. This Act falls within these powers and duties by 425
requiring certain training and qualification standards for 426
contractors performing construction work on high hazard 427
facilities. 428

(B) Public health and safety protections enacted under the 429
State's police powers have been repeatedly upheld by the courts. 430
For example, the Ohio Supreme Court has pointedly recognized 431
that the "[p]rotection and preservation of public health are 432
among the prime governmental concerns and functions of the state 433
as a sovereignty." *State ex. rel. Mowrer v. Underwood*, 137 Ohio 434
St. 1 (1940) (upholding state legislation relating to regulation 435
of health districts); *see also State v. Martin*, 168 Ohio St. 37 436
(1958) (upholding state regulation of well drilling to protect 437
water supply as a reasonable police power function). Federal 438
courts likewise have protected the sanctity of state police 439
powers for the sake of both public health and worker safety. 440
See Associated Builders & Contractors v. Michigan Department of 441
Labor and Economic Growth, 543 F.3d 275 (6th Cir. 2008) 442
(upholding apprenticeship training requirements in state trade 443

licensing law under state's police powers). 444

(C) In this Act, the General Assembly recognizes that use 445
of its police power is necessary to protect public health and 446
worker safety by requiring adherence to certain training and 447
certification standards by contractors performing work on high 448
hazard facilities, where faulty or inferior work practices can 449
pose serious risks to workers at these facilities and the 450
general public, resulting in potentially catastrophic 451
consequences. 452

(D) There are compelling grounds and public policy 453
justifications for this Act. Construction is an inherently 454
dangerous industry, wherein errors in project planning or 455
execution can result in serious health and safety risks. Geetha 456
M. Waehrer, Xiuwen S. Dong, Ted Miller, Elizabeth Haile, and 457
Yurong Men, *Costs of Occupational Injuries in Construction in* 458
the United States, 39 Accident Analysis and Prevention 1258 459
(2007) (construction is a high risk industry and accounts for 460
disproportionate share of work-related injuries). 461

(E) The risks inherent in construction are substantially 462
higher in high hazard facilities that handle dangerous materials 463
or substances insofar as unsafe work practices may cause 464
explosions, chemical spills and other hazardous conditions, 465
which may expose workers and the public, especially populations 466
in nearby communities, to dangerous conditions that can lead to 467
serious bodily injuries and death. 468

(F) Congress has addressed these dangers by enacting 469
section 112(r) of the "Clean Air Act," 42 U.S.C. 7412(r), under 470
which the U.S. Environmental Protection Agency requires owners 471
and operators of such facilities to implement "Risk Management 472
Plans" ("RMP") to prevent public health threats presented by 473

such facilities. See also 40 C.F.R. Part 68 and 59 Fed. Reg. 474
4233 and 4478. 475

(G) It has been well documented that petroleum refineries, 476
in particular, present acute risks of workplace accidents. The 477
U.S. Department of Labor, Occupational Safety and Health 478
Administration (OSHA) found that, since the agency began 479
monitoring safety management at these facilities in 1992, "no 480
other industry sector has had as many fatal or catastrophic 481
incidents related to the release of highly hazardous chemicals . 482
. . as petroleum refining. . . ." See Occupational Safety and 483
Health Administration, OSHA 3918-08 2017, *Process Safety* 484
Management for Petroleum Refineries (2017). 485

(H) In an attempt to address these risks, OSHA issued 486
regulations in 1992 for high hazard facilities that require 487
owners and operators to follow certain procedures for evaluating 488
safety performance of contractors and established requirements 489
for safety programs to ensure that contractor employees are 490
properly trained. See 29 C.F.R. 1910.119. 491

(I) In 2017, OSHA announced a National Emphasis Program 492
for inspecting facilities with highly hazardous chemicals. The 493
directive detailed the numerous fatal and/or catastrophic safety 494
incidents that occurred just since 2010, including the 495
following: 496

(1) "A heat exchanger catastrophically ruptured, which 497
caused an explosion and fire killing seven workers." 498

(2) "A crew was realigning pumps due to a pump seal leak 499
in an isomerization unit when flammable materials were released, 500
formed a vapor cloud and ignited. The fire killed one worker and 501
hospitalized three with burn injuries." 502

(3) "An explosion killed two workers attempting to light a boiler at a fluid catalytic cracking unit."	503 504
(4) "Ignition of a release of flammable materials killed one contract worker attempting to install a blind flange on a knockout drum."	505 506 507
(5) "An eight-inch-diameter pipe catastrophically ruptured, releasing flammable, high-temperature light gas oil, which then formed a large vapor cloud that ignited. The ensuing explosion and fire caused minor injuries to six workers and hospitalized approximately 20 residents of the community near the refinery."	508 509 510 511 512 513
Occupational Safety and Health Administration, Directive No. CPL 03-00-021, OSHA Instruction, <i>PSM Covered Chemical Facilities National Emphasis Program</i> (January 17, 2017).	514 515 516
(J) A review of the most recently available OSHA data reveals that unacceptable levels of risk persist in this sector. Specifically, there has been a recent surge in "serious" OSHA safety violations at petroleum refineries—an increase of 78% in 2019 over the previous year. Federal law defines a "serious" safety violation as one having a "substantial probability [of causing] death or serious physical harm" that an employer knew or should have known to exist. Section 17 of the "Occupational Safety and Health Act of 1970," 29 U.S.C. 666.	517 518 519 520 521 522 523 524 525
(K) The other main federal agency that oversees the high hazard sector of the construction industry is the U.S. Chemical Safety and Hazard Investigation Board (CSB), which is responsible for investigating serious accidents at high hazard facilities. Examples of recent CSB investigations include the following:	526 527 528 529 530 531

(1) Delaware City Refining Company Flash Fire (Delaware City, DE) - On November 29, 2015 an employee suffered severe burns to the face when flammable material was inadvertently released into the plant sewer system. United States Chemical Safety and Hazard Investigation Board, Safety Bulletin No. 2015-01-I-DE, <i>Key Lessons for Preventing Incidents When Preparing Process Equipment for Maintenance</i> (2017).	532 533 534 535 536 537 538
(2) ExxonMobil Refinery Chemical Release and Fire (Baton Rouge, LA) - On November 22, 2016 four workers at an oil refinery suffered severe burns when isobutane gas that had been inadvertently released ignited. United States Chemical Safety and Hazard Investigation Board, Safety Bulletin No. 2016-02-I-LA, <i>Key Lessons from the ExxonMobil Baton Rouge Refinery Isobutane Release and Fire</i> (2017).	539 540 541 542 543 544 545
(3) ExxonMobil Refinery Explosion (Torrance, CA) - On February 18, 2015, a pollution mitigation device exploded during a time when ExxonMobil had attempted to isolate the equipment so that maintenance could be performed. Debris from the explosion nearly hit tanks full of hydrofluoric acid, a highly toxic substance that can cause serious injury or death at just 30 parts per million. United States Chemical Safety and Hazard Investigation Board, Investigation Report No. 2015-02-I-CA, <i>ExxonMobil Torrance Refinery</i> (2017).	546 547 548 549 550 551 552 553 554
(L) Over the past several years, CSB has conducted several investigations at high hazard facilities in which it categorically determined that "insufficient safety requirements for contractor selection and oversight were found to be causal" to the accidents in question." United States Chemical Safety and Hazard Investigation Board, <i>Contractor Safety Digest, The Importance of Contractor Selection and Oversight</i> (2018).	555 556 557 558 559 560 561

(M) In addition to the considerable challenges highlighted 562
above, safety threats are likely to increase due to critical, 563
unprecedented craft labor shortages. These conditions underscore 564
the need for greater scrutiny over contractor qualifications 565
generally and especially in the high hazard sector. Ben DuBose, 566
ECF '16: Energy Contractors Need Newcomers to Ease Labor 567
Shortage, Hydrocarbon Processing (March 1, 2016) (craft shortage 568
primary factor in 65% failure rate among mega-projects in Gulf 569
Coast Region); Gavin Aronsen, *Labor Shortage Delays DuPont* 570
Plant Completion, Ames Tribune (January 9, 2015) (shortage of 571
qualified workers delayed the completion of a \$200 million 572
DuPont ethanol plant in Iowa). 573

(N) Acting in response to these growing risks and related 574
concerns, Washington State, California and New Jersey have 575
enacted legislation to require contractors on certain high 576
hazard facilities, including petroleum refineries, to require 577
construction contractors to ensure their craft workforce meets 578
minimum apprenticeship training and experience requirements as a 579
means of ensuring the use of properly trained, safety-conscious 580
employees at these facilities. 581

(O) These statutes are based on growing concerns regarding 582
the eminent dangers of the petroleum refinery sector, as well as 583
extensive public policy findings, which recognize that 584
established apprenticeship training programs in the construction 585
industry are most reliable and effective means for ensuring 586
proper qualifications of craft labor personnel due to the in- 587
depth skill and safety training they provide. 588

(P) Widespread recognition of the value of apprenticeship 589
training generally has also promoted at least 14 states have 590
passed incorporating critical apprenticeship training components 591

into their public works programs. See 2020 Va. Acts Chapter 176; 592
Colo. Rev. Stat. Ann. 24-92-115; Title 26 Me. Rev. Stat. 3501 593
and 3502; Assembly No. 3666 of the 218th New Jersey Legislature; 594
N.J. Ann. Stat. 52:38-5; N.M. Stat. Ann. 13-4D-4; Wash. Rev. 595
Code 39.04.320; Ind. Code 5-30-5-3; Md. State Finance and 596
Procurement Code 17-601 to 17-606 and 17-6A-06; Wyo. Stat. 16-6- 597
902; Chapter 30 Ill. Comp. Stat. 500/30-22; R.I. Gen. Laws 37- 598
13-3.1; Title 8 Cal. Code of Reg. 230.1; Cal. Labor Code 1777.5; 599
Haw. Rev. Stat. 103-55.6; N.Y. Consolidated Law Service, Labor 600
Law 816-b; and Code of Md. Reg. 01.01.2013.05. 601

(Q) The apprenticeship training provisions relate to skill 602
and safety training standards developed for craft labor 603
apprenticeship programs established under the "National 604
Apprenticeship Act of 1937," 29 U.S.C. 50, et seq. 605
Apprenticeship training is a system in which workers are fully 606
trained through organized, formally registered apprenticeship 607
standards, designed in accordance with established quality, 608
safety and performance standards approved and monitored by the 609
U.S. Department of Labor and state labor agencies, including the 610
Ohio Department of Job and Family Services. United States 611
Department of Commerce and Case Western Reserve University, *The 612
Benefits and Costs of Apprenticeship: A Business Perspective* 613
(2016) (apprenticeship programs are widely supported by 614
contractors and other employers as highly cost-effective due to 615
higher productivity of trained workers, improved safety, 616
improved project quality, more reliable project staffing, and 617
reduction in employee turnover). 618

(R) In order to be approved under applicable federal 619
regulations, an apprenticeship program must have an organized, 620
written plan that contains provisions addressing "safety 621
training for apprentices on the job and in related instruction" 622

in addition to numerous other standards for acquiring critical 623
skills in a given trade. Apprentices receive a combination of 624
extensive on-the-job training, combined with classroom and shop 625
instruction, and must pass specific skill-level tests after each 626
year before they can proceed to the next year in programs that 627
typically involve a 3 to 5 curriculum. See 29 C.F.R. 29.5. 628

(S) In educating workers in the construction industry, the 629
training used to develop skills in the respective trades is 630
inextricably linked to safety training since performing many 631
functions or tasks safely requires that the work correctly. 632
Executing tasks in construction properly also requires that they 633
be carried out in accordance with a number of complex industry 634
codes and standards. See, e.g., Farzad Minooei, *Towards a* 635
Deeper Understanding of the U.S. Workforce Development System 636
in the Construction Industry (2018) (Ph.D. dissertation, 637
University of Colorado) ("A skilled workforce is essential to 638
safety, productivity and sustainability of construction and 639
maintenance activities"). Conversely, the use of workers 640
with inadequate training can seriously undermine project safety. 641
See, e.g., Hossein Karimi, Timothy R.B. Taylor, Paul M. Goodrum, 642
and Cidambi Srinivasan, *Quantitative Analysis of the Impact of* 643
Craft Worker Availability on Construction Project Safety 644
Performance, 16 *Construction Innovation* 307 (2016) ("When a 645
project is executed by less qualified craft workers, increases 646
in human errors, less familiarity with safety procedures and 647
legislations and inadequate safety training will be the factors 648
that adversely influence safety performance."). 649

(T) In view of these factors, the General Assembly finds 650
that the use of apprenticeship training standards on 651
construction projects for high hazard facilities provides the 652
most effective means for addressing growing public safety 653

threats and should be incorporated into the project planning
system used for these facilities.

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