

State: Indiana **Filing Company:** Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: B-1442
Project Name/Number: Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Filing at a Glance

Company: Indiana Compensation Rating Bureau
 Product Name: B-1442
 State: Indiana
 TOI: 16.0 Workers Compensation
 Sub-TOI: 16.0002 Employers Liability WC
 Filing Type: Rule
 Date Submitted: 01/29/2021
 SERFF Tr Num: INCR-132698324
 SERFF Status: **Closed-Filed**
 State Tr Num: EFT OK /
 State Status:
 Co Tr Num: B-1442
 Co Status:
 Effective Date: 01/01/2022
 Requested (New):
 Effective Date: 01/01/2022
 Requested (Renewal):
 Author(s): Robin Eleson
 Reviewer(s): Taylor Ulisse (primary), Kim Green
 Disposition Date: 02/10/2021
 Disposition Status: Filed
 Effective Date (New):
 Effective Date (Renewal):

State: Indiana **Filing Company:** Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: B-1442
Project Name/Number: Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

General Information

Project Name: Revisions to Basic Manual Appendix E
Classifications by Hazard Group

Project Number: B-1442

Reference Organization:

Reference Title:

Filing Status Changed: 02/10/2021

State Status Changed:

Created By: Robin Eleson

Corresponding Filing Tracking Number:

Status of Filing in Domicile: Pending

Domicile Status Comments:

Reference Number:

Advisory Org. Circular: NCCI Circular CIF-2020-61

Company Status Changed:

Deemer Date:

Submitted By: Robin Eleson

Filing Description:

This item revises the current classification hazard group assignments in NCCI's Basic Manual for Workers Compensation and Employers Liability Insurance (Basic Manual) Appendix E—Classifications by Hazard Group.

Company and Contact

Filing Contact Information

Robin Eleson, Analyst

kbyrd@icrb.net

5920 Castleway West Dr

317-842-2800 [Phone]

Ste 121

Indianapolis, IN 4607146250

Filing Company Information

Indiana Compensation Rating
Bureau

CoCode:

State of Domicile: Indiana

5920 Castleway W Dr

Group Code:

Company Type: Rating

Indianapolis, IN 46250

Group Name: ICRB

Organization

(317) 842-2800 ext. 301[Phone]

FEIN Number: 35-0837318

State ID Number:

State: Indiana Filing Company: Indiana Compensation Rating Bureau
 TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
 Product Name: B-1442
 Project Name/Number: Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Filing Fees

Transaction Fees

Transaction Fees	Company	Amount	Date Processed	Transaction #
NAIC Transaction Fee	Indiana Compensation Rating Bureau	\$13.75	01/29/2021 08:58 AM	193334512

NAIC Fees Total **\$13.75**

State Fees

Fee Required? No
 Retaliatory? No
 Fee Explanation:
 Per Company: Yes

Company	Amount	Date Processed	Transaction #
Indiana Compensation Rating Bureau	\$2,125.00	02/10/2021 09:52 AM	194189973
Indiana Compensation Rating Bureau	\$13.75	01/29/2021 08:58 AM	193334357

EFT Total **\$2,138.75**

Filing Fees Total

Fee Type	Amount
Transaction Fee Total	\$13.75
State EFT Total	\$2,138.75
State Check Total	\$0.00

Filing Fee Total **\$2,152.50**

SERFF Tracking #:

INCR-132698324

State Tracking #:

EFT OK /

Company Tracking #:

B-1442

State:

Indiana

Filing Company:

Indiana Compensation Rating Bureau

TOI/Sub-TOI:

16.0 Workers Compensation/16.0002 Employers Liability WC

Product Name:

B-1442

Project Name/Number:

Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Correspondence Summary

Dispositions

Status	Created By	Created On	Date Submitted
Filed	Taylor Ulisse	02/10/2021	02/10/2021

Objection Letters and Response Letters

Objection Letters

Status	Created By	Created On	Date Submitted
Pending Industry Response	Kim Green	02/02/2021	02/02/2021

Response Letters

Responded By	Created On	Date Submitted
--------------	------------	----------------

State: Indiana Filing Company: Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: B-1442
Project Name/Number: Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Disposition

Disposition Date: 02/10/2021

Effective Date (New):

Effective Date (Renewal):

Status: Filed

Comment:

Rate data does NOT apply to filing.

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	80 Filing Description/Cover Letter/NAIC Transmittal		Yes
Supporting Document	Third Party Filers		Yes
Supporting Document	B-1442 Filing Mmeorandum		Yes

State: Indiana **Filing Company:** Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: B-1442
Project Name/Number: Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Objection Letter

Objection Letter Status	Pending Industry Response
Objection Letter Date	02/02/2021
Submitted Date	02/02/2021
Respond By Date	02/09/2021

Dear Robin Eleson,

Introduction:

Objection 1

Comments: Good Afternoon,

The Indiana Department of Insurance has reviewed this filing and determined accurate filing fees were not submitted. The Department analyst indicated the commercial filing included rules. Indiana is a retaliatory state with regard to filing fees and requires the greater of the insurer's domicile fee or the Indiana fee. In this case, the required fee for the filing is \$35. Indiana fees are as follows: \$35 flat filing fee for commercial P&C filings. Since \$13.75 was submitted via EFT for the SERFF filing, a balance of \$21.25 remains due.

For reference, the Indiana Code 27-1-3-15 establishes requirements for Rate and Form submissions and Indiana Code 27-1-20-12 reflects retaliatory guidelines. Please do not hesitate to contact me should you have any questions. We appreciate your help with this request.

Thank you,

Kim Green

P: (317) 234-5473

F: (317) 234-5882

Kigreen@idoi.IN.gov

Conclusion:

Sincerely,

Kim Green

SERFF Tracking #:

INCR-132698324

State Tracking #:

EFT OK /

Company Tracking #:

B-1442

State:

Indiana

Filing Company:

Indiana Compensation Rating Bureau

TOI/Sub-TOI:

16.0 Workers Compensation/16.0002 Employers Liability WC

Product Name:

B-1442

Project Name/Number:

Revisions to Basic Manual Appendix E Classifications by Hazard Group/B-1442

Supporting Document Schedules

Satisfied - Item:	80 Filing Description/Cover Letter/NAIC Transmittal
Comments:	ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	Third Party Filers
Comments:	Per IC 27-7-2-3 through IC 27-7-2-4 the Bureau has statutory authority to file rates, rules, plans and forms on behalf of all workers compensation insurance companies in Indiana.
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	B-1442 Filing Mmeorandum
Comments:	
Attachment(s):	B-1442--Revisions to Basic Manual Appendix E--Classifications by Hazard Group.pdf
Item Status:	
Status Date:	

FILING MEMORANDUM

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

PURPOSE

This item revises the current classification hazard group assignments in NCCI's *Basic Manual for Workers Compensation and Employers Liability Insurance (Basic Manual)* Appendix E—Classifications by Hazard Group.

BACKGROUND

Hazard groups are collections of workers compensation classifications that have similar expected excess loss factors (ELFs) over a broad range of limits. They are a key component to both the Retrospective Rating Plan and NCCI ratemaking.

Hazard groups are also used in deductible programs, which are offered in several states on an optional basis. In these states, the premium reduction percentages vary by hazard group. For each policy where an employer has elected to apply a deductible, the premium reduction percentage for the elected deductible amount is based on the hazard group assignment for the classification that produces the largest amount of estimated workers compensation standard premium on the policy for the state.

Additionally, under NCCI's most recent class ratemaking methodology, hazard groups are used to determine the expected excess loss provision when determining the loss cost/rate for each classification. The losses are limited to \$500,000, with an expected excess loss provision applied to bring the basis of loss to an unlimited basis. This expected excess loss provision depends on the hazard group of the classification.

To ensure that the hazard group assignments in the Table of Classifications by Hazard Group in Appendix E of NCCI's *Basic Manual* are appropriate, NCCI conducted a comprehensive review of those assignments. NCCI performed a data-driven statistical analysis supplemented by a review of results from an underwriting perspective. The statistical analysis was based on classification data aggregated across the states where NCCI collects workers compensation Statistical Plan data.

Exhibit 1 details the revisions to Appendix E in NCCI's *Basic Manual*. Appendix E provides the applicable state(s) and the appropriate hazard group for each classification. The term "National" means that the classification code applies in all jurisdictions that follow the NCCI classification system. The exhibit does not include classifications for which the hazard group is not changing.

A description of the actuarial analysis supporting the hazard group reassignments is detailed in Informational Exhibit 1.

PROPOSAL

This item proposes to update Appendix E—Classifications by Hazard Group in NCCI's *Basic Manual*. The number of hazard groups remains at seven (A through G). Classification codes with the highest propensity for large losses—the most hazardous—are assigned to G, and those with the lowest are assigned to A.

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

IMPACT

Overall Impact

The proposed changes are expected to have minimal impact on overall state premium levels. Furthermore, 54% of the hazard group assignments remain unchanged. Of the classifications whose hazard group assignments change, most move only one hazard group.

Individual employers will be impacted if they are written under deductible programs or if they have a loss limit under the Retrospective Rating Plan. Premium impacts will vary for employers depending on the proportion of an employer's exposure in each classification. They may experience small increases or decreases in premium, but their equity would be improved because the deductibles and ELFs would more appropriately distinguish between higher and lower hazard employers.

Classification Loss Costs/Rates

Loss cost and rate impacts will vary across classification codes depending on whether the code moved up or down hazard groups. When determining the indicated pure premium portion of classification loss costs/rates under NCCI's most recent class ratemaking methodology, individual claims are initially limited at \$500,000. The losses are brought from a limited to an unlimited level during this process through applying an expected excess loss provision that varies by hazard group.

Thus, changes in hazard group assignments directly affect only the indicated pure premium portion of the loss cost/rate in the first year of implementation and are gradually reflected in other pure premium components¹ of the loss cost/rate in subsequent filing years.

The estimated range of impacts to the indicated pure premiums as a result of the change in hazard group assignments is expected to be significantly less than the typical range of changes in classification loss costs/rates in a annual loss cost/rate filing. Because the indicated pure premium is only a portion of the classification loss cost/rate, the impact to the classification loss cost/rate is expected to be less than the impact to the indicated pure premium.

IMPLEMENTATION

This item applies to new and renewal policies concurrent with each state's loss cost/rate filings beginning with effective dates November 1, 2021, and subsequent (exception: July 1, 2021, in Texas). For example, this item will be effective November 1, 2021, for approved loss cost/rate filings that have a November 1, 2021 effective date. Similarly, this item will be effective July 1, 2022, for approved loss cost/rate filings that have a July 1, 2022 effective date.

¹ Present on rate level pure premium and national pure premium.

FILING MEMORANDUM

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

If there is no loss cost/rate filing for a state in a given year, this item will take effect on that state's regular loss cost/rate effective date. The regular loss cost/rate effective date is one year later than the date of the state's previous year's effective date.

Anticipated Effective Dates by State

The following chart shows the anticipated effective dates for each state:

State	Anticipated Effective Date*
Alabama	March 1, 2022
Alaska	January 1, 2022
Arizona	January 1, 2022
Arkansas	July 1, 2022
Colorado	January 1, 2022
Connecticut	January 1, 2022
District of Columbia	November 1, 2021
Florida	January 1, 2022
Georgia	March 1, 2022
Hawaii	The effective date will be determined upon regulatory approval of the individual carrier's election to adopt this change.
Idaho	January 1, 2022
Illinois	January 1, 2022
Indiana	January 1, 2022
Iowa	January 1, 2022
Kansas	January 1, 2022
Kentucky	January 1, 2022
Louisiana	May 1, 2022
Maine	April 1, 2022
Maryland	January 1, 2022
Mississippi	March 1, 2022
Missouri	January 1, 2022

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

State	Anticipated Effective Date *
Montana	July 1, 2022
Nebraska	February 1, 2022
Nevada	March 1, 2022
New Hampshire	January 1, 2022
New Mexico	January 1, 2022
Oklahoma	January 1, 2022
Oregon	January 1, 2022
Rhode Island	August 1, 2022
South Carolina	April 1, 2022
South Dakota	July 1, 2022
Tennessee	March 1, 2022
Texas	July 1, 2021
Utah	January 1, 2022
Vermont	April 1, 2022
Virginia	April 1, 2022
West Virginia	November 1, 2021

* Subject to change, depending on the approved effective date of the loss cost/rate filing if a loss cost/rate filing has been submitted for a state.

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

Exhibit	Exhibit Comments
1	Displays the revisions to Appendix E—Classifications by Hazard Group in NCCI's <i>Basic Manual</i> . The exhibit does not include classifications for which the hazard group is not changing.
Informational Exhibit 1	Displays the actuarial analysis supporting the hazard group reassignments.
Informational Exhibit 2	Displays Appendix E—Classifications by Hazard Group in NCCI's <i>Basic Manual</i> in a downloadable format. The exhibit includes all active classifications in the Table of Classifications by Hazard Group.

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1
BASIC MANUAL—2001 EDITION
APPENDIX E

CLASSIFICATIONS BY HAZARD GROUP

Appendix E provides a Table of Classifications by Hazard Group. This table is intended to provide details regarding the applicable hazard group by classification code and state.

Table of Classifications by Hazard Group

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
0008	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		D <u>C</u>
0011	06/01/2014: TX		D <u>E</u>
0017	AZ		E <u>D</u>
0030	FL, LA		D <u>E</u>
0034	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
0035	National, IN 10/01/2007: WV		B <u>D</u>
0035	06/01/2014: TX		G <u>D</u>
0037	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV	07/01/2016: MT	D <u>E</u>
0037	06/01/2014: TX		G <u>E</u>
0050	National, IN 10/01/2007: WV		G <u>E</u>
0052	FL		E <u>D</u>
0059	AL, AK, AZ, AR, CO, CT, DC, FL, GA, IA, ID, IL, IN, KS, LA, ME, MD, MS, MO, MT, NE, NH, NM, OK, RI, SC, SD, TN, UT, VT 10/01/2007: WV 06/01/2014: TX	01/01/2014: OR	G <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
0066	AL, AK, AZ, AR, CO, CT, DC, FL, GA, IA, ID, IL, IN, KS, LA, ME, MD, MS, MO, MT, NE, NH, NM, OK, OR, RI, SC, SD, TN, UT, VT 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
0067	AL, AK, AZ, AR, CO, CT, DC, FL, GA, IA, ID, IL, IN, KS, LA, ME, MD, MS, MO, MT, NE, NH, NM, OK, OR, RI, SC, SD, TN, UT, VT 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
0079	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX	07/01/2016: MT	E <u>D</u>
0083	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV	07/01/2016: MT	G <u>D</u>
0083	06/01/2014: TX		E <u>F</u>
0113	06/01/2014: TX		G <u>D</u>
0117	OR		B <u>C</u>
0124	04/01/2008: AK		E <u>C</u>
0124	ID, MT, OR		B <u>C</u>
0153	FL		E <u>D</u>
0173	FL		B <u>C</u>
0251	National, IN 10/01/2007: WV		G <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
0908	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NM, NV, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 07/01/2019: TX		⊆ <u>D</u>
0913	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NM, NV, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		⊆ <u>D</u>
0914	ID		⊆ <u>C</u>
0918	09/01/2007: NM 03/01/2008: IL 07/01/2008: RI 01/01/2010: CT 11/01/2010: DC		⊆ <u>D</u>
0923	06/01/2014: TX		⊆ <u>D</u>
1165	National, IN 10/01/2007: WV		⊆ <u>G</u>
1218	FL		⊆ <u>E</u>
1322	National, IN 10/01/2007: WV		⊆ <u>G</u>
1438	National, IN 10/01/2007: WV 06/01/2014: TX		⊆ <u>E</u>
1463	National, IN 10/01/2007: WV 06/01/2014: TX		⊆ <u>G</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
1472	AK, AZ, AR, CO, CT, DC, FL, HI, IA, ID, IL, IN, KS, KY, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 03/01/2017: AL, GA 05/01/2017: LA		F <u>E</u>
1701	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
1803	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>E</u>
1811	VT		G <u>F</u>
1924	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
2002	AL, AK, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MO, MS, MT, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV	01/01/2010: FL	B <u>C</u>
2003	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
2016	National, IN 10/01/2007: WV		B <u>C</u>
2039	National, IN 10/01/2007: WV		B <u>C</u>
2040	06/01/2014: TX		B <u>C</u>
2041	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
2065	National, IN 10/01/2007: WV		E <u>D</u>
2068	06/01/2014: TX		E <u>D</u>
2070	National, IN 10/01/2007: WV		E <u>D</u>
2081	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		E <u>B</u>
2095	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
2101	AK	03/01/2017: AL 04/01/2017: VA	B <u>C</u>
2110	National, IN 10/01/2007: WV		B <u>C</u>
2111	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
2112	National, IN 10/01/2007: WV		B <u>C</u>
2121	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>B</u>
2122	AK		B <u>C</u>
2130	National, IN 10/01/2007: WV		G <u>D</u>
2172	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
2174	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		B <u>C</u>
2220	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
2288	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
2302	National, IN 10/01/2007: WV		G <u>D</u>
2305	National, IN 10/01/2007: WV		D <u>E</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
2361	National, IN 10/01/2007: WV		€ D
2413	National, IN 10/01/2007: WV		€ D
2503	National, IN 10/01/2007: WV 06/01/2014: TX		B C
2532	06/01/2014: TX	04/01/2016: VA	A C
2534	06/01/2014: TX		B C
2570	National, IN 10/01/2007: WV		B C
2581	06/01/2014: TX		B D
2583	06/01/2014: TX		€ D
2585	AL, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		B D
2587	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		B C
2589	AL, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		€ D
2600	National, IN 10/01/2007: WV		B C
2623	National, IN 10/01/2007: WV		D E

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
2651	National, IN 10/01/2007: WV		B <u>C</u>
2683	06/01/2014: TX		B <u>C</u>
2688	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
2697	OR		G <u>F</u>
2701	07/01/2007: AL, AR, CO, CT, GA, HI, IL, IN , KS, LA, MD, ME, MS, NE, NM, OK, RI, SC, SD 10/01/2007: AZ, KY, WV 11/01/2007: DC 12/01/2007: UT 01/01/2008: IA, MO, NH 03/01/2008: TN 04/01/2008: VA	04/01/2018: VT	E <u>F</u>
2705	GA, LA, MS, TN	07/01/2017: TX	E <u>F</u>
2709	ME, NH, OK, SD, VT 07/01/2007: AL, CO, CT, GA, HI, IL, IN , KS, MD, NE, NM, NV, RI, SC, VT 10/01/2007: AZ, WV 11/01/2007: DC 12/01/2007: UT 01/01/2008: IA, MO 03/01/2008: TN 03/01/2017: MS		E <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
2710	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>E</u>
2714	National, IN 10/01/2007: WV		B <u>C</u>
2719	AR, KY, LA 06/01/2014: TX	03/01/2017: MS	E <u>F</u>
2721	ME, NH, NM, UT 04/01/2019: VT		G <u>F</u>
2725	AK, OR, VA		E <u>F</u>
2727	MT, NV	01/01/2008: ID	E <u>F</u>
2731	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>C</u>
2735	National, IN 10/01/2007: WV		B <u>C</u>
2759	National, IN 10/01/2007: WV		B <u>C</u>
2797	AZ, GA, ID, IN , KS 01/01/2010: FL 04/01/2010: VA 01/01/2011: AK, CO, CT, HI, IA, IL, ME, MD, MO, NH, NM, OK, OR 02/01/2011: NE 03/01/2011: AL, MS, NV, TN 04/01/2011: VT 05/01/2011: LA		G <u>B</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
	06/01/2011: RI 07/01/2011: AR, MT, SC, SD 10/01/2011: KY 11/01/2011: DC, WV 12/01/2011: UT		
2835	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
2836	National, IN 10/01/2007: WV		A <u>B</u>
2841	National, IN 10/01/2007: WV		B <u>C</u>
2881	National, IN 10/01/2007: WV		A <u>B</u>
2881	06/01/2014: TX		B <u>C</u>
2915	National, IN 10/01/2007: WV		D <u>E</u>
2916	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		F <u>E</u>
2960	National, IN 10/01/2007: WV		G <u>D</u>
3004	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3018	National, IN 10/01/2007: WV		E <u>F</u>
3022	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3028	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>E</u>
3040	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3041	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
3064	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
3076	01/01/2008: FL	09/01/2011: NE 10/01/2014: KY 11/01/2014: DC, WV 12/01/2014: UT 01/01/2015: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, MD, MO, NH, OK, OR 03/01/2015: AL, GA, MS, NV, TN 04/01/2015: ME, VA, VT 05/01/2015: LA	B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
		07/01/2015: AR, MT, SD 08/01/2015: RI 09/01/2015: SC 01/01/2016: NM	
3081	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3085	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3110	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3113	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3114	National, IN 10/01/2007: WV		E <u>D</u>
3114	06/01/2014: TX		B <u>D</u>
3126	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3131	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
3132	06/01/2014: TX		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3145	National, IN 10/01/2007: WV		€ <u>D</u>
3146	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
3179	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3180	National, IN 10/01/2007: WV		B <u>C</u>
3188	National, IN 10/01/2007: WV		B <u>D</u>
3220	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
3227	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3255	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
3300	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>B</u>
3303	National, IN 10/01/2007: WV		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3307	National, IN 10/01/2007: WV		€ <u>D</u>
3315	National, IN 10/01/2007: WV		B <u>C</u>
3316	06/01/2014: TX		B <u>C</u>
3334	National, IN 10/01/2007: WV		€ <u>D</u>
3336	National, IN 10/01/2007: WV		E <u>D</u>
3365	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
3383	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3385	National, IN 10/01/2007: WV		B <u>C</u>
3400	National, IN 10/01/2007: WV		D <u>C</u>
3507	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
3515	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		€ <u>D</u>
3559	National, IN 10/01/2007: WV		€ <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3574	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3581	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		B <u>C</u>
3629	National, IN 10/01/2007: WV		B <u>D</u>
3629	06/01/2014: TX		B <u>C</u>
3634	National, IN 10/01/2007: WV		B <u>D</u>
3635	National, IN 10/01/2007: WV		G <u>D</u>
3638	National, IN 10/01/2007: WV		B <u>C</u>
3643	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>E</u>
3681	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3685	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3724	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
3805	06/01/2014: TX		G <u>D</u>
3807	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
3821	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
3822	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>C</u>
3823	06/01/2014: TX		D <u>C</u>
3824	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>C</u>
3826	National, IN 10/01/2007: WV		G <u>D</u>
3827	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		D <u>C</u>
3851	National, IN 10/01/2007: WV		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
3865	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
3881	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
4021	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
4038	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
4062	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
4101	06/01/2014: TX		E <u>D</u>
4109	01/01/2010: FL 04/01/2010: VA 01/01/2011: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, ME, MD, MO, NH, NM, OK, OR 02/01/2011: NE 03/01/2011: AL, GA, MS, NV, TN 04/01/2011: VT 05/01/2011: LA 06/01/2011: RI 07/01/2011: AR, MT, SC, SD		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
	<p>10/01/2011: KY</p> <p>11/01/2011: DC, WV</p> <p>12/01/2011: UT</p>		
4111	<p>National, IN</p> <p>10/01/2007: WV</p>		B <u>C</u>
4114	<p>National, IN</p> <p>10/01/2007: WV</p> <p>06/01/2014: TX</p>		E <u>D</u>
4131	<p>National, IN</p> <p>10/01/2007: WV</p>		B <u>C</u>
4149	<p>01/01/2010: FL</p> <p>04/01/2010: VA</p> <p>01/01/2011: AK, AZ, CO, CT, HI, IA, ID, IL, IN, KS, ME, MD, MO, NH, NM, OK, OR</p> <p>02/01/2011: NE</p> <p>03/01/2011: AL, GA, MS, NV, TN</p> <p>04/01/2011: VT</p> <p>05/01/2011: LA</p> <p>06/01/2011: RI</p> <p>07/01/2011: AR, MT, SC, SD</p> <p>10/01/2011: KY</p> <p>11/01/2011: DC, WV</p> <p>12/01/2011: UT</p>		A <u>B</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
4150	06/01/2014: TX	01/01/2010: FL 04/01/2010: VA 01/01/2011: AK, AZ, CO, CT, HI, IA, ID, IL, IN, KS, ME, MD, MO, NH, NM, OK, OR 02/01/2011: NE 03/01/2011: AL, GA, MS, NV, TN 04/01/2011: VT 05/01/2011: LA 06/01/2011: RI 07/01/2011: AR, MT, SC, SD 10/01/2011: KY 11/01/2011: DC, WV 12/01/2011: UT	A <u>B</u>
4206	06/01/2014: TX		E <u>C</u>
4207	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
4239	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
4243	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
4244	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>E</u>
4250	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4263	National, IN 10/01/2007: WV		€ <u>D</u>
4273	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4279	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>E</u>
4299	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>D</u>
4307	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
4312	OK		€ <u>D</u>
4351	06/01/2014: TX		B <u>C</u>
4352	National, IN 10/01/2007: WV		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
4361	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
4362	06/01/2014: TX	01/01/2010: FL 01/01/2012: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, MD, ME, MO, NH, NM, OK, OR 02/01/2012: NE 03/01/2012: AL, GA, MS, NV, TN 04/01/2012: VA, VT 05/01/2012: LA 07/01/2012: AR, MT, RI, SD 09/01/2012: SC 10/01/2012: KY 11/01/2012: DC, WV 12/01/2012: UT	G <u>E</u>
4431	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
4432	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 01/01/2017: OR		A <u>B</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
4452	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4459	National, IN 10/01/2007: WV		€ <u>E</u>
4459	06/01/2014: TX		B <u>E</u>
4470	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4493	National, IN 10/01/2007: WV		€ <u>D</u>
4557	National, IN 10/01/2007: WV		B <u>E</u>
4558	National, IN 10/01/2007: WV		€ <u>D</u>
4558	06/01/2014: TX		B <u>D</u>
4611	National, IN 10/01/2007: WV		B <u>C</u>
4611	06/01/2014: TX		E <u>D</u>
4635	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>F</u>
4653	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
4683	National 10/01/2007: WV 07/01/2017: TX 01/01/2020: IN		€ <u>D</u>
4692	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
4703	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4712	06/01/2014: TX		€ <u>E</u>
4717	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
4720	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
4740	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>G</u>
4741	National, IN 10/01/2007: WV		€ <u>D</u>
4766	AL, AZ, ID, IN 06/01/2014: TX		€ <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
4771	AL, AK, AZ, AR, CO, CT, DC, FL, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 03/01/2016: GA		G <u>F</u>
4777	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>F</u>
4828	National, IN 10/01/2007: WV 07/01/2017: TX		B <u>F</u>
4902	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
4923	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
5020	National, IN 10/01/2007: WV		E <u>F</u>
5022	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
5160	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
5183	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
5188	National, IN 10/01/2007: WV		E <u>F</u>
5190	National, IN 10/01/2007: WV		E <u>F</u>
5191	National, IN 10/01/2007: WV		G <u>E</u>
5191	06/01/2014: TX		D <u>E</u>
5192	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
5200	06/01/2014: TX		E <u>F</u>
5203	06/01/2014: TX		F <u>G</u>
5213	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
5215	National, IN 10/01/2007: WV		D <u>E</u>
5220	06/01/2014: TX		E <u>F</u>
5221	National, IN 10/01/2007: WV		E <u>F</u>
5222	National, IN 10/01/2007: WV		F <u>G</u>
5402	National, IN 10/01/2007: WV		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
5437	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
5443	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
5445	National, IN 10/01/2007: WV		F <u>G</u>
5474	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
5478	National, IN 10/01/2007: WV		E <u>F</u>
5479	National, IN 10/01/2007: WV		D <u>E</u>
5491	06/01/2014: TX		E <u>F</u>
5506	AL, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, VA, VT 10/01/2007: WV 06/01/2014: TX		G <u>F</u>
5516	AK, UT		E <u>G</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
5535	<p>07/01/2007: AL, AR, CO, GA, HI, ID, IL, IN, KS, MD, ME, MS, NE, NM, NV, RI, SC, SD, VT</p> <p>10/01/2007: AZ, KY, WV</p> <p>11/01/2007: DC</p> <p>12/01/2007: UT</p> <p>01/01/2008: FL, IA, MO, MT, NH, OK, OR</p> <p>03/01/2008: TN</p> <p>04/01/2008: VA</p> <p>04/01/2010: AK</p>		E <u>G</u>
5538	<p>06/01/2014: TX</p>	<p>07/01/2007: AL, AR, CO, CT, GA, HI, ID, IL, IN, KS, LA, MD, ME, MS, NE, NM, NV, OK, RI, SC, SD, VT</p> <p>10/01/2007: AZ, KY</p> <p>11/01/2007: DC</p> <p>12/01/2007: UT</p> <p>01/01/2008: FL, IA, MO, MT, NH, OR</p> <p>03/01/2008: TN</p> <p>04/01/2008: VA</p> <p>04/01/2010: AK</p>	E <u>G</u>
5606	<p>National, IN</p> <p>10/01/2007: WV</p> <p>06/01/2014: TX</p>		F <u>G</u>
5610	<p>National, IN</p> <p>10/01/2007: WV</p>		G <u>E</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
5645	National, IN 10/01/2007: WV		F <u>G</u>
5951	National, IN 10/01/2007: WV		B <u>C</u>
6003	AL, AK, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX	07/01/2006: FL	E <u>F</u>
6006	07/01/2006: FL		E <u>F</u>
6213	National, IN 10/01/2007: WV		F <u>G</u>
6214	National, IN 10/01/2007: WV		G <u>F</u>
6217	National, IN 10/01/2007: WV		F <u>G</u>
6219	06/01/2014: TX		F <u>G</u>
6229	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>E</u>
6233	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
6237	National, IN 10/01/2007: WV		E <u>F</u>
6257	CO		G <u>F</u>
6306	06/01/2014: TX		G <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
6319	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>G</u>
6325	National, IN 10/01/2007: WV		F <u>G</u>
6400	National, IN 10/01/2007: WV		D <u>E</u>
6503	01/01/2010: FL 04/01/2010: VA 01/01/2011: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, ME, MD, MO, NH, NM, OK 02/01/2011: NE 03/01/2011: AL, GA, MS, NV, TN 04/01/2011: VT 05/01/2011: LA 06/01/2011: RI 07/01/2011: AR, MT, SC, SD 10/01/2011: KY 11/01/2011: DC, WV 12/01/2011: UT		B <u>C</u>
6504	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
6513	OK		B <u>C</u>
6823	06/01/2014: TX		F <u>E</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
6824	National, IN 10/01/2007: WV 06/01/2014: TX		F <u>E</u>
6834	National, IN 10/01/2007: WV		D <u>C</u>
6836	National, IN 10/01/2007: WV		E <u>D</u>
6838	FL		D <u>E</u>
6854	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		G <u>F</u>
6882	National, IN 10/01/2007: WV		G <u>F</u>
6884	AL, AK, AZ, AR, CO, CT, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		G <u>F</u>
7133	06/01/2014: TX		G <u>F</u>
7134	06/01/2014: TX		G <u>F</u>
7135	06/01/2014: TX		G <u>F</u>
7201	FL		G <u>D</u>
7204	FL		B <u>C</u>
7205	FL		G <u>D</u>
7219	06/01/2014: TX		E <u>F</u>
7222	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		E <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
7380	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
7382	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
7403	AL, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		E <u>C</u>
7405	National, IN 10/01/2007: WV		E <u>C</u>
7405	06/01/2014: TX		G <u>C</u>
7418	06/01/2014: TX	01/01/2010: AK	G <u>F</u>
7421	National, IN 10/01/2007: WV		F <u>E</u>
7421	06/01/2014: TX		G <u>E</u>
7422	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>F</u>
7423	06/01/2014: TX	07/01/2008: AR, AZ, LA, MD, ME, MO, NM, TN	E <u>C</u>
7425	National, IN 10/01/2007: WV		G <u>F</u>
7431	National, IN 10/01/2007: WV		G <u>F</u>
7502	06/01/2014: TX		F <u>E</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
7520	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>D</u>
7590	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
7605	National, IN 10/01/2007: WV		E <u>F</u>
7610	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
7699	IN		E <u>F</u>
7704	06/01/2014: TX		G <u>F</u>
7723	CT, ME, NV, VA		G <u>F</u>
7729	01/01/2010: OR		E <u>F</u>
7732	01/01/2018: IN 10/01/2019: LA		E <u>F</u>
8001	National, IN 10/01/2007: WV		B <u>C</u>
8003	AK		B <u>C</u>
8006	National, IN 10/01/2007: WV 06/01/2014: TX		G <u>B</u>
8010	National, IN 10/01/2007: WV		B <u>C</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
8013	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
8014	IL		B <u>C</u>
8015	National, IN 10/01/2007: WV 07/01/2019: TX		€ <u>D</u>
8018	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
8032	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
8033	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>B</u>
8034	AZ, MO, OK		€ <u>B</u>
8034	06/01/2014: TX		B <u>C</u>
8037	01/01/2010: FL 04/01/2010: VA 01/01/2011: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, MD, ME, MO, NH, NM, OK, OR 02/01/2011: NE 03/01/2011: AL, GA, MS, NV, TN 04/01/2011: VT 05/01/2011: LA		B <u>A</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
	06/01/2011: RI 07/01/2011: AR, MT, SC, SD 10/01/2011: KY 11/01/2011: DC, WV 12/01/2011: UT		
8044	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>C</u>
8045	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
8047	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
8102	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
8107	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
8111	National, IN 10/01/2007: WV		G <u>D</u>
8113	06/01/2014: TX		E <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
8116	National, IN 10/01/2007: WV		E <u>D</u>
8203	National, IN 10/01/2007: WV		E <u>D</u>
8204	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		E <u>D</u>
8227	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>
8231	06/01/2014: TX		F <u>E</u>
8235	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		E <u>D</u>
8236	NM		E <u>F</u>
8265	06/01/2014: TX		E <u>F</u>
8288	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
8292	06/01/2014: TX		D <u>C</u>
8293	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>C</u>
8304	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
8385	National, IN 10/01/2007: WV 06/01/2014: TX		E <u>D</u>
8392	National, IN 10/01/2007: WV		G <u>B</u>
8393	National, IN 10/01/2007: WV		G <u>E</u>
8411	AZ, OR		G <u>F</u>
8601	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>F</u>
8602	01/01/2010: AK, CO, CT, FL, HI, IA, IL, IN , KS, ME, MD, MO, NH, NM, OR 02/01/2010: NE, RI 03/01/2010: AL, MS, NV, TN 04/01/2010: VA, VT 05/01/2010: LA 07/01/2010: AR, MT, SC, SD, WV 10/01/2010: AZ, KY 11/01/2010: DC 12/01/2010: UT 01/01/2011: OK 03/01/2011: GA		B <u>E</u>
8606	06/01/2014: TX		G <u>F</u>
8607	06/01/2014: TX		B <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
8719	AL, AK, AZ, AR, CO, CT, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		G <u>F</u>
8720	National, IN 10/01/2007: WV 07/01/2019: TX		E <u>F</u>
8723	01/01/2011: FL 01/01/2012: AK, AZ, CO, CT, HI, IA, ID, IL, IN, KS, MD, ME, MO, NH, NM, OK, OR 02/01/2012: NE 03/01/2012: AL, GA, MS, NV, TN 04/01/2012: VT 05/01/2012: LA 07/01/2012: AR, MT, RI, SD 09/01/2012: SC 10/01/2012: KY 11/01/2012: DC, WV 12/01/2012: UT		G <u>D</u>
8726	06/01/2014: TX		G <u>F</u>
8744	07/01/2016: MT		E <u>C</u>
8748	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>F</u>
8752	06/01/2014: TX		B <u>C</u>
8754	CT, LA, RI 04/01/2020: VT		G <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
8754	06/01/2014: TX		D <u>C</u>
8800	National, IN 10/01/2007: WV		A <u>C</u>
8811	CO, ID		B <u>C</u>
8820	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
8824	National, IN 10/01/2007: WV 07/01/2019: TX		B <u>A</u>
8826	National, IN 10/01/2007: WV 07/01/2019: TX		G <u>B</u>
8829	FL, NV	07/01/2019: TX 10/01/2019: KY 11/01/2019: DC, WV 01/01/2020: AK, AZ, CO, CT, HI, IA, ID, IL, IN , KS, MD, MO, NH, NM, OK, UT 02/01/2020: NE 03/01/2020: AL, GA, MS, TN 04/01/2020: ME, SC, VA, VT 05/01/2020: LA 07/01/2020: AR, SD	G <u>B</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
8831	National, IN 10/01/2007: WV 06/01/2014: TX		Ⓔ <u>A</u>
8834	07/01/2016: MT		B <u>C</u>
8837	06/01/2014: TX	10/01/2007: AK, CO 01/01/2014: OR	Ⓔ <u>B</u>
8842	OR 10/01/2007: AL, AK, AZ, AR, CO, CT, DC, GA, IA, ID, IL, KS, KY, LA, ME, MD, MS, MT, NE, NH, NM, OK, RI, SC, SD, TN, UT, VT, WV 01/01/2008: HI, IN 01/01/2010: FL		Ⓔ <u>A</u>
8864	10/01/2007: AL, AK, AZ, AR, CO, CT, DC, GA, IA, ID, IL, KS, KY, LA, ME, MD, MS, MT, NE, NH, NM, OK, RI, SC, SD, TN, UT, VT, WV 01/01/2008: HI, IN 01/01/2010: FL 01/01/2014: OR		Ⓔ <u>B</u>
8871	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		B <u>C</u>
8901	National, IN 10/01/2007: WV		D <u>E</u>
9012	AL, AK, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 01/01/2012: AZ, OR 07/01/2012: MT		D <u>E</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
9015	National, IN 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
9032	AZ		€ <u>B</u>
9032	06/01/2014: TX		€ <u>D</u>
9033	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 06/01/2014: TX		€ <u>D</u>
9040	06/01/2014: TX		€ <u>B</u>
9053	OK		B <u>C</u>
9061	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>
9062	CO, IA, IL, IN , KS, KY, LA, MS, MO, NE, NM, OR, SD 10/01/2007: WV		A <u>B</u>
9078	AK, ID		€ <u>D</u>
9079	06/01/2014: TX		B <u>A</u>
9084	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		€ <u>B</u>
9088	AL, AK, AZ, CO, CT, DC, FL, HI, IA, ID, IL, IN , KY, LA, ME, MD, MS, MO, MT, NV, NH, NM, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV		€ <u>F</u>
9094	AK, MT		€ <u>F</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
9102	National, IN 10/01/2007: WV 06/01/2014: TX		⊆ <u>D</u>
9154	06/01/2014: TX		<u>D</u> <u>C</u>
9156	National, IN 10/01/2007: WV 06/01/2014: TX		<u>D</u> <u>B</u>
9170	CO 07/01/2007: AL, AR, CO, CT, GA, HI, ID, IL, IN , KS, LA, MD, ME, MS, NE, NM, NV, OK, RI, SC, SD, VT 10/01/2007: AZ, KY, WV 11/01/2007: DC 12/01/2007: UT 01/01/2008: AK, FL, IA, MO, MT, NH 03/01/2008: TN 04/01/2008: VA 06/01/2014: TX		⊆ <u>F</u>
9179	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 01/01/2008: MO 06/01/2014: TX		<u>B</u> <u>A</u>
9180	National, IN 10/01/2007: WV		<u>E</u> <u>D</u>
9310	OR		<u>E</u> <u>F</u>
9315	OR		<u>E</u> <u>D</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A–G
9328	OR		E <u>D</u>
9402	National, IN 10/01/2007: WV		E <u>F</u>
9411	07/01/2016: MT		G <u>E</u>
9415	UT		E <u>D</u>
9420	MT		E <u>D</u>
9422	07/01/2016: MT		E <u>D</u>
9452	NV		E <u>D</u>
9453	NV		G <u>D</u>
9501	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>
9516	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SD, TN, UT, VA, VT 10/01/2007: WV		E <u>D</u>
9522	National, IN 10/01/2007: WV		G <u>B</u>
9522	06/01/2014: TX		D <u>B</u>
9529	06/01/2014: TX		F <u>G</u>
9534	AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN , KS, KY, ME, MD, MS, MO, MT, NE, NV, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, VT 10/01/2007: WV 05/01/2017: LA		F <u>G</u>
9586	National, IN 10/01/2007: WV 06/01/2014: TX		A <u>B</u>

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY
HAZARD GROUP

EXHIBIT 1 (CONT'D)
BASIC MANUAL—2001 EDITION
APPENDIX E
Table of Classifications by Hazard Group (Cont'd)

Class Code	Applies in:*	Discontinued in:	Hazard Group A-G
9600	National, IN 10/01/2007: WV 06/01/2014: TX		B <u>C</u>
9620	National, IN 10/01/2007: WV 06/01/2014: TX		D <u>E</u>

* The term "National" means that the classification code applies in all jurisdictions that follow the NCCI classification system.

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

INFORMATIONAL EXHIBIT 1

This exhibit is a summary of the analysis used to determine the Hazard Group (HG) assignments in this Item.

Introduction

The Hazard Group assignment for a given class code represents its propensity for large losses relative to its losses of all sizes. This relative propensity for large losses corresponds to the concept of *excess ratios*.¹

The analysis can be divided into two major parts: first, producing estimates of excess ratios by class, and second, grouping classes together that have similar excess ratios to form HGs.

Data

For each class, exposure and claim data reported under NCCI's *Statistical Plan for Workers Compensation and Employers Liability Insurance* are pooled across 37 states for five older policy periods, corresponding to policy periods within the 2010–2015 time frame. The claim amounts are evaluated as of 1st through 5th reports and are developed to ultimate and trended to a common date.

Excess Ratios

To produce the Excess Loss Factors/Excess Loss Pure Premium Factors (ELFs/ELPPFs) in the State Special Rating Values pages of the *Retrospective Rating Plan Manual*, NCCI calculates excess ratios by HG at 40 different loss limits, ranging from \$10,000 to \$10,000,000. These 40 excess ratios are calculated by combining three sets of values by state, HG, and Claim Group:² average claim severity, claim count, and the severity distribution.³ In the analysis underlying this Item, the same framework is used to calculate excess ratios by class code. However, since individual class codes have less data than HGs, adjustments

¹An excess ratio at a given loss limit is defined as the ratio of the losses exceeding the loss limit to total losses.

²Claim groups are based on the injury type reported in Statistical Plan data and the Likely-to-Develop and Not-Likely-to-Develop distinction in NCCI's class ratemaking as follows:

1. Fatal
2. Permanent Total
3. Permanent Partial and Temporary Total—Likely-to-Develop
4. Permanent Partial and Temporary Total—Not-Likely-to-Develop
5. Medical Only

For reasons of stability, the claims in the Fatal and Permanent Total groups were excluded in the main procedure to produce the class assignment to HGs. The assignments that would have been produced had the Fatal and Permanent Total groups been included were reviewed in the manual review step.

³The average claim severity and claim count are estimated via a multilevel Bayesian model in each update, while the severity distribution is updated less frequently (the last two updates were performed in 2014 and 2019).

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

INFORMATIONAL EXHIBIT 1 (CONT'D)

to the credibility procedures were necessary in order to stabilize the excess ratios for small and medium classes.

Two levels of credibility procedures were applied. The first-level credibility procedure adopts the framework from the annual update of the ELFs/ELPPFs, with minor adjustments to the estimation of average claim severities and claim counts to account for the lower data volume on a class code basis compared to HGs. This results in excess ratios calculated at each of the 40 loss limits for each class.

The second-level credibility procedure is applied to the excess ratios calculated from the first-level credibility procedure, according to the square root rule as follows:

$$R_{Final} = Z \cdot R_{First-Level} + (1 - Z) \cdot R_{Current\ HG},$$

where R_{Final} is the excess ratio from the second-level credibility procedure, $R_{First-Level}$ the excess ratio from the first-level credibility procedure, $R_{Current\ HG}$ the excess ratio from the current HG assignment for the class, and Z the credibility of the excess ratio of the class, defined by

$$Z = \min\left(\sqrt{\frac{n}{5000}}, 1\right),$$

where n is the number of claims (for all claim groups combined) in the class.

At this point, 40 credibility-weighted excess ratios have been calculated for each class.

Number of Hazard Groups and Crossover

After the excess ratios for each class at the 40 individual loss limits have been calculated, the number of HGs is determined. There are two main considerations to balance in determining how many HGs to which classes can be assigned: More HGs allows for a finer differentiation between classes with different propensity for large losses, but may also lead to undesirable “crossover” situations where a HG with a lower propensity for losses exceeding a low loss limit (compared to another HG) switches to having a higher propensity for losses exceeding a high loss limit.

Seven HGs was the maximum number of HGs such that these crossover situations did not occur, and this number was chosen as the number of HGs used in the step to assign classes to HGs.

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

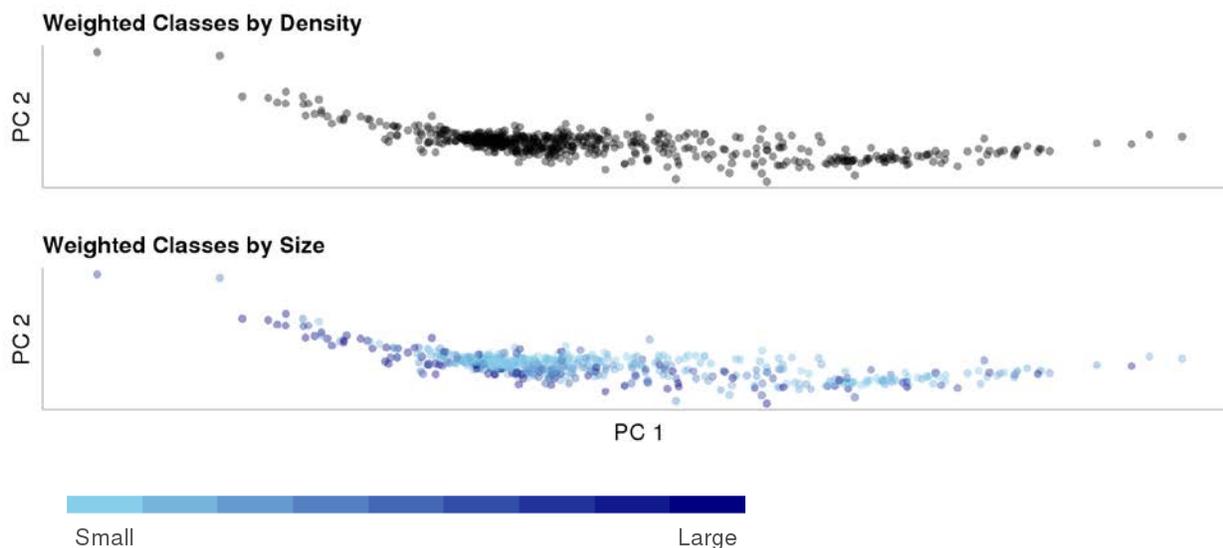
INFORMATIONAL EXHIBIT 1 (CONT'D)

Principal Components Analysis

Principal Component Analysis is used to reduce the 40 dimensions for each class (each dimension represented by each of the 40 individual loss limits) to 2 dimensions in order to group the classes into HGs.

The first Principal Component dimension reflects behavior across all loss limits nearly equally, and the second reflects differences in behavior between classes at the lowest and highest loss limits. The two Principal Component dimensions together describe more than 97% of the behavior for all class codes across the 40 individual loss limits.

Thus, with each class being represented by two values (one value in each Principal Component dimension), the classes can be plotted into a two-dimensional space, so that classes that are nearby have similar excess ratios. The two following graphs are examples of this concept:



At this point, each class is represented by two values, one in each of the two Principal Component dimensions, and will be grouped into seven HGs.

k-means clustering

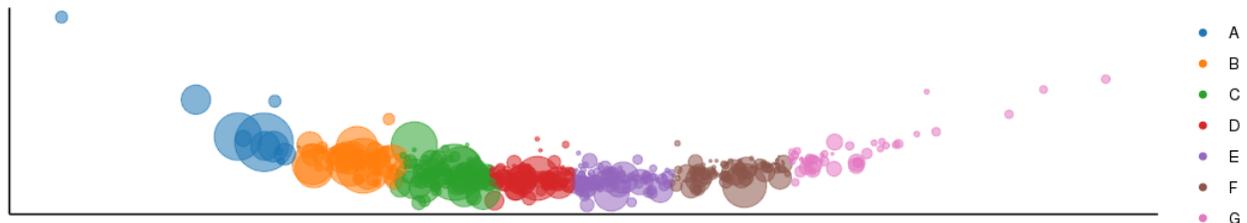
k-means clustering is the algorithm used to group classes with similar excess ratios into HGs. Conceptually, the k-means clustering algorithm assigns each class to the nearest HG in Principal

ITEM B-1442—REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

INFORMATIONAL EXHIBIT 1 (CONT'D)

Component space,⁴ recalculates the centroids of the HGs, and repeats the reassignment and recalculation steps until the assignments no longer change.

The following graph is an example of the result of the described concept in Principal Component space, with each color representing an HG:



At this point, most classes have an HG assignment. Some assignments were not determined during the standard process (e.g., F-classes, new classes, state specials, etc.); these assignments were determined during the manual review.

Manual Review

NCCI incorporated feedback individually provided by NCCI Underwriting Committee members on the HG assignments produced by the k-means cluster algorithm; this feedback focused on smaller classes and classes that were not assigned to a HG by the standard process. NCCI staff also performed a review of larger classes, classes with large differences in the feedback from the Underwriting Committee, and classes that changed more than one HG (and related classes).

The manual review results are included in the final HG assignments included in this Item.

⁴The nearest HG is defined as the HG whose centroid (i.e., weighted mean, with weights being the total claim counts in the class) with the smallest distance to the class, where distance metric is the Euclidean distance in the two-dimensional Principal Component space.