



Criteria and Rationales

for Field-Initiated In-Depth Investigations

FY 2020

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U.S. Consumer Product Safety Commission
Epidemiology, Division of Data Systems (EPDS)

Criteria and Rationales for Field-Initiated In-Depth Investigations FY 2020

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Purpose

The purpose of the *Criteria and Rationales for Field-Initiated In-Depth Investigations* (C&R) is to:

1. Identify certain cases that field staff should assign for in-depth investigation.
2. Provide an explanation of why certain cases should be assigned.
3. Indicate the Investigation Guidelines to be followed during these investigations.

The Investigation Guidelines for each product area are periodically updated and are available in the Integrated Field System (IFS).

If there are any questions before or during an investigation, the field investigator should contact the person(s) at headquarters listed in the C&R as points-of-contact for the specific product area.

The investigator should note *on the contacts page of the investigation report (Exhibit 1)*, when a conversation with an analyst resulted in a change in the investigation requirements.

Because the C&R is only updated/printed on an annual basis (October 1 each year), investigators making field assignments based on the C&R should confirm that all current appropriate headquarters staff –both Compliance *and* non-Compliance – are included in the distribution of the completed IDI.

Fire-Related Hazards

Fires and Thermal Burns, General (BUNN01)

CATEGORY ID: BUNN01

CATID Owner: David Miller

EPHA Analyst: David Miller, EPHA, 301-504-7323, dmiller@cpsc.gov
Project/Program Lead: Rik Khanna, EXHR, 301-987-2508, rkhanna@cpsc.gov
Backup contact: Jennifer Timian, CRE, 301-504-7503, JTimian@cpsc.gov
Compliance contacts: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Headquarters will assign fire or explosion incidents involving fatalities or injuries that are *not covered* by other categories of the Criteria and Rationales. Telephone or on-site investigations may be requested for high-visibility cases.

Incidents involving children and portable gasoline containers are being evaluated by the compliance officer in accordance with the “Children’s Gasoline Burn Prevention Act” of 2008. Any questions on such incidents should be directed to the Compliance Contact.

Rationale for Obtaining Investigations

Investigations will support the CPSC’s Strategic Plan for 2018 - 2022 to fulfill our mission to promote injury prevention, to raise public awareness of product risks, and to act quickly when a risk is detected from consumer product fire hazards. Fire is the third leading cause of deaths in the home (Home Safety Council, 2004). It is a leading cause of accidental home deaths for children under 5 years old (Centers for Disease Control and Prevention, 2017). Investigations will also be used to monitor the effectiveness of current voluntary standards and to promote new standards recommended by the Commission staff.

Fire-Related Hazards

Mattresses and Bedding (BUNN12)

CATEGORY ID: BUNN12

CATID Lead: David Miller

Includes mattress pads, futon mattresses, adult mattresses, children’s mattresses, waterbeds (with “mattress-like” bladders), and air mattresses that contain upholstery material between the ticking and the mattress core.

Appropriate Guidelines: Mattresses/Bedding – Appendix 15
Smoke Detectors/Alarms – Appendix 129

EPHA Analyst: David Miller, EPHA, 301-504-7323, dmiller@cpsc.gov
Project/Program Lead: Allyson Tenney, LSE, 301-987-2769, atenney@cpsc.gov
Compliance contact: Justin Jirgl, CRE, 301-504-7814, jjirgl@cpsc.gov
Troy Whitfield, CRE, 301-504-7548, TWhitfield@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Cases will usually be assigned from Headquarters. Field may also initiate investigations upon notifying the analyst at Headquarters. Cases of interest are ones where a mattress or bedding was possibly the first item ignited in a fire, and the fire resulted in at least one civilian death or injury. Fires reported to CPSC by fire departments are considered the best source of fire incidents. If the mattress and/or bedding items are still available, conduct an on-site investigation and photograph the products; otherwise conduct a telephone investigation. Be sure to determine and report whether the mattress involved was a "futon mattress" or a conventional mattress. If possible, determine whether the mattress was a pre- or post-open-flame standard mattress.

Rationale for Obtaining Investigations

Fires in mattresses and bedding were of sufficient concern in the early 1970s to justify the issuance of a mandatory standard intended to address cigarette ignition. Still, as recently as 2016, there remained an estimated 250 lives lost due to mattress and bedding fires ignited by smoking materials and an additional 110 deaths occurred a result of open-flame and other ignition sources. In January 2006, CPSC issued a final flammability rule for mattress sets to reduce the severity of mattress fires and to make mattresses less flammable. This rule took effect in July 2007. CPSC is still interested in fires involving the ignition of mattresses and bedding to gather information that can help in work on addressing casualties resulting from the flammability of bedclothes.

Fire-Related Hazards

Upholstered Furniture (BUNN25)

CATEGORY ID: BUNN25

CATID Owner: David Miller

Appropriate Guidelines: Upholstered Furniture – Appendix 19
Smoke Detectors/Alarms – Appendix 129

EPHA Analyst: David Miller, EPHA, 301-504-7323, dmiller@cpsc.gov

Backup contact: Andrew Lock, LSE, 301-987-2059, alock@cpsc.gov

Compliance contact: Justin Jirgl, CRE, 301-504-7814, JJirgl@cpsc.gov

ATTENTION: We are no longer assigning Upholstered Furniture IDIs at this time.

Criteria for Assigning Non-NEISS Investigations

Upholstered furniture fires caused by any heat source with at least one civilian casualty are of interest. Cases will usually be assigned from Headquarters. Field may also initiate investigations upon notifying the Headquarters analyst. Conduct a telephone investigation to determine if upholstered furniture was the first material ignited. If the first material ignited was upholstered furniture, conduct an on-site investigation. Be sure to capture how the item ignited.

Rationale for Obtaining Investigations

Upholstered furniture fires were associated with an estimated 370 civilian deaths in 2016. These included an estimated 220 deaths where the heat source was smoking materials and an estimated 150 deaths from fires started by other heat sources for upholstered furniture (*e.g.*, space heaters, extension cords, outlets).

The upholstered furniture fire investigations will be used for two chief purposes: first, they will be used to determine the hazard scenarios for smoking materials, small open-flame, and other types of ignitions of furniture. Second, the investigations will be used to evaluate the effect of potential standards on fire casualties and property losses. Consequently, the investigation guideline focuses on the people in the structure at the time of the fire; in particular, their locations, conditions, and their abilities to escape the fire.

Fire-Related Hazards

Children’s Wearing Apparel (BUNN11)

CATEGORY ID: BUNN11

CATID Owner: Jacqueline Campbell

Appropriate Guideline: Children’s Wearing Apparel – Appendix 23A

Analysts: Jacqueline Campbell, ESEF, 301-987-2024, jcampbell@cpsc.gov
Paige Witzen, LSE, 301-987-2029, pwitzen@cpsc.gov
Compliance contacts: Carolyn Carlin, CRE, 301-504-7889, ccarlin@cpsc.gov
Troy Whitfield, CRE, 301-504-7548, TWhitfield@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Investigate all cases that involve ignition, melting, or smoldering of all types of garments worn by children under age 15. Injuries that relate to the amendment of the children's sleepwear standards, that is, cases involving infants and cases involving garments worn by children that can be classified as “snug fitting,” are of particular interest. Some cases may involve clothing not marketed as sleepwear, such as underwear, playwear, or oversized adult t-shirts that were used by children as sleepwear.

Do an onsite investigation only if a sample of the sleepwear garment can be obtained or viewed. Otherwise, conduct a telephone investigation. Collect the entire garment, if possible, so that flammability can be tested and the garment can be measured to determine if it is of the required proportions; samples as small as 1 square inch from undamaged areas can be useful to determine the fiber content, fabric construction, and if the fabric had a flame-retardant finish.

Rationale for Obtaining Investigations

Currently, there are two flammability standards in effect for children's sleepwear, one for sizes 0 through 6X, the other for sizes 7 through 14. The Commission voted in 1996 to amend the standards to exempt from regulation garments intended for infants (size 0-9 months) and tight-fitting garments. Investigations will be used to gather information regarding the effects of the amendment and to determine the involvement of other types of clothing.

Fire-Related Hazards

Candles (or Candle Accessories) (BUNN41)

CATEGORY ID: BUNN41

CATID Owner: David Miller

Appropriate Guideline: Candle Fires & Fire Hazards – Appendix 121
Smoke Detectors/Alarms – Appendix 129

EPHA Analyst: David Miller, EPHA, (301-504-7323, dmiller@cpsc.gov)

Backup contact: Yeon Kim, ESEF, 301-987-2258, YKim@cpsc.gov

Compliance contact: Joseph Williams, CDI, 301-504-7585, jfwilliams@cpsc.gov _

Criteria for Assigning Non-NEISS Investigations

Headquarters will make assignments. In general, assignments will be made based on reports from fire departments, newspaper clippings, and other sources, only if the candle (or accessory) malfunctioned in an addressable way.

Rationale for Obtaining Investigations

Candles or candle accessories as the source of heat of ignition are one of the leading causes of residential fires. CPSC staff worked with an ASTM subcommittee to develop a voluntary standard on candle fire safety, and work is being done on separate voluntary standards for gel candles and candle accessories. In 2016, there were an estimated 5,300 candle fires that resulted in 70 deaths and 600 injuries. This data collection will help to identify the products involved, their characteristics, and how they were being used.

Fire-Related Hazards

Fireworks Devices (CARM02)

CATEGORY ID: CARM02

CATID Owner: Jason Ng

Appropriate Guideline: Fireworks – Appendix 109

EPHA Analyst: Yongling Tu, EPHA, 301-504-7841, ytu@cpsc.gov
Product Expert: Rodney Valliere, LSC, 301-987-2526, rvalliere@cpsc.gov
Compliance contact: Jason Ng, CRE, 301-504-7848, JNg@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all incidents that result in serious injuries or deaths associated with any fireworks device. “Serious injuries” are defined as injuries requiring admission to the hospital for medical treatment.

Also assign all incidents associated with the following, even if no injuries are involved:

- Large, illegal firecracker-type devices, such as M-80s, M-100s, M-1000s, “quarter” or “half” sticks, silver salutes, tennis or ping pong ball “bombs.”
- Chemicals or components for constructing the illegal fireworks devices listed above or actual completed devices made from components (including chemicals, casings, end plugs, and fuses).
- Pest control devices used as fireworks. These are typically cylindrical devices approximately 3” long. They may have a fuse or German labeling.
- Professional (1.3G, UN0335, formerly Class B) fireworks that were sold to or used by a consumer.

Rationale for Obtaining Investigations

The staff is actively involved in enforcing the Commission's ban on firecrackers which contain in excess of 50 milligrams of powder and other noise-making devices that contain more than 2 grains (130 mg) of powder. Commission staff is also enforcing the labeling and performance requirements for consumer fireworks and pyrotechnics offered or sold to consumers. In addition, the Commission published a notice of proposed rulemaking in February 2017, which may lead to possible amendments to the fireworks regulations. Incident information is needed to monitor compliance with regulations and to follow up on any firms found selling devices in violation of them.

Fire-Related Hazards

Multi-Purpose Lighters (CARM11)

CATEGORY ID: CARM11

CATID Owner: Julio Alvarado

Appropriate Guideline: Lighter Fires – Appendix 45
(See note below in *Criteria for other guidelines.*)

Compliance contact: Julio Alvarado, CRE, 301-504-7418, jalvarado@cpsc.gov

Backup contact: Rik Khanna, EXHR, 301-987-2508, rkhanna@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all residential fires caused by child playing with multi-purpose lighters in which the fire was ignited by a child under age 5 years or of unknown age. Products may be referred to as grill, barbecue, candle, utility, gas-match, or fireplace lighters. Most are wand-like in shape; micro-torches are included. If possible, try to collect the lighter involved in the fire or any pieces of it that may have been recovered. If the lighter ignited Upholstered Furniture (Appendix 19), Mattresses & Bedding (Appendix 15), Children's clothing (Appendix 23A), or Clothing on person age 15 or older (Appendix 23), please provide the information requested in those Guidelines and Data Record Sheets as well. If Smoke Detector/Alarm was present, use Appendix 129.

Rationale for Obtaining Investigations

Instances of suspected noncompliance with the Safety Standard for Multi-Purpose Lighters (16 C.F.R. part 1212) will be assigned for investigation.

Fire-Related Hazards

LP and NG Gas Systems (BUNN39)

CATEGORY ID: BUNN39

CATID Owner: Ronald Jordan

Appropriate Guidelines: Liquefied Petroleum (LP) Gas Fuel Train – Appendix 97
Control Panel - Gas Ranges – Appendix 138

Technical contact: Ronald Jordan, ESMC, 301-987-2219, RJordan@cpsc.gov

Backup contact: Yeon Kim, ESEF, 301-987-2258, YKim@cpsc.gov

Compliance contact: Joseph Williams, CDI, 301-504-7585, jwilliams@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Investigate all explosion and fire incidents reportedly involving a LP gas system.

Rationale for Obtaining Investigations

Investigations will support the work of the Combustion Appliance PAT team in evaluating, monitoring, and recommend changes to the voluntary standards for fuel-burning products.

Fire-Related Hazards

High-Energy Density Rechargeable Battery Fires

(BUNN04) [Lithium-ion (Li-Ion), Nickel-Metal Hydride (NiMH), Lead-acid, Nickel-Cadmium (Ni-Cd, NiCad)]

CATEGORY ID: BUNN04

CATID Owner: Doug Lee

Appropriate Guideline: Guidelines as indicated for specific electrical and battery powered products, IoT/Connected Products – Appendix 140
Hoverboard Guidelines, CPSC Hazmat Guidelines

EPHA Analyst: Matthew Hnatov, EPHA, 301-504-7403, mhnatov@cpsc.gov

Project/Program Lead: Doug Lee, EXHR, 301-987-2073, dlee@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, BRose@cpsc.gov

Backup Contact: Jay Kadiwala, ESEF, 301-987-2517, JKadiwala@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all injuries and deaths related to fires and explosion from rechargeable battery products. Otherwise, one of the contacts listed above will make assignments. Specific instructions will be issued at the time investigations are assigned. This category will be used for assigning cases involving products associated with overheating, fire, shock, and related physical injury incidents.

Assign for fires involving rechargeable batteries, including the following products:

- a) Laptops;
- b) Tablets;
- c) Mobile phones;
- d) Power banks or portable battery packs (including automotive jumpstarters);;
- e) Personal transportation equipment (hoverboards, scooters, e-bikes);
- f) Lighting;
- g) Baby monitors;
- h) Power tools; and
- i) Toys.

Rationale for Obtaining Investigations

The investigations will be used to evaluate the effectiveness of existing standard requirements and assess need for new standards/requirements in battery-powered consumer products. The staff will be monitoring and encouraging industry voluntary action to upgrade or develop new standards or requirements. This is part of the Commission's effort to evaluate and mitigate risks with high-energy density batteries in consumer products.

Additionally, the CPSC and outside stakeholders are focused on the Internet of Things (IoT) and its safety and security. CPSC have been collecting incident data involving electrical appliances and other electrical equipment that are remotely controlled over the internet to assess safety hazards caused by being remotely connected to the internet (within CPSC's jurisdiction).

Electrical and Mechanical Hazards

Electrical Hazards, General (ELNN01)

CATEGORY ID: ELNN01

CATID Owner: Doug Lee

Appropriate Guidelines: Electrocutation/Electric Shock – Appendix 34
IoT/Connected Products – Appendix 140
Other guidelines as indicated for specific electrical products

Technical contact: Doug Lee, EXHR, 301-504-2073, DLee@cpsc.gov
EPA Analyst: David Miller, EPHA, 301-504-7323, dmiller@cpsc.gov
Backup contact: Arthur Lee, ESEF, 301-987-2008, alee@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign for electrocution/electric shock or fires involving the following products:

1. Cooktops and range/ovens, electric or gas;
2. Clothes dryers, electric or gas;
3. Electric heaters (fixed-position or portable);
4. Power cords. This includes extension cords, relocatable power taps (power or outlet strips), and detachable or permanent connected cords on electrical products;
5. GFCI receptacles or GFCI circuit breakers;
6. AFCI receptacles or AFCI circuit breakers; and
7. Other appliances with significant burning, charring, or fire.

In addition, assign for only shocks/electrocutions involving the following products:

1. Class 2 power supplies, such as adaptors, ac chargers, power supply cords for laptops, cell phones, tablets; and
2. All other products resulting in an electrocution*.

In general, headquarters will make assignments. Specific instructions will be issued at the time investigations are assigned. This category will be used for assigning cases involving products associated with electric shock and electrical fire incidents.

Rational for Obtaining Investigations

From 2014 through 2016, there were an estimated annual average of 640 fatalities and several thousand injuries due to electrical fires. There was an annual estimated average of 48 electrocutions involving consumer products from 2010 through 2013. In addition to these deaths and injuries, property damages due to electrical fires averaged to about \$1.6 billion annually. Over half of the fires, deaths, and injuries are associated with a few products.

Assignments of electrical fires and shocks associated with consumer products will help the Commission to evaluate the effectiveness of its involvement in electrical voluntary standards development.

Additionally, the CPSC and outside stakeholders are focused on the Internet of Things (IoT) and its safety and security. CPSC have been collecting incident data involving electrical appliances and other electrical equipment that are remotely controlled over the internet to assess safety hazards caused by being remotely connected to the internet (within CPSC's jurisdiction).

*Electrocution meaning electric shock resulting in death.

Electrical and Mechanical Hazards

Power Equipment, General (TLNN01)

CATEGORY ID: TLNN01

CATID Owner: John Topping

Appropriate Guidelines: Table/Bench Saws – Appendix 76
Radial Arm Saws & Mitre Saws – Appendix 67

EPHA Analyst: John Topping, EPHA, 301-504-7329, jtopping@cpsc.gov

Technical contacts: Caroleene Paul, ESMC, 301-987-2225, cpaul@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all deaths or serious injuries that required hospitalization associated with table saws, radial arm saws, miter saws.

(Specific instructions should be discussed with analysts or one of the Technical Contacts. Use SF 182 and Investigation Guidelines.)

Rationale for Obtaining Investigations

The Commission staff will monitor serious injuries and deaths with various types of power equipment. Investigations will be used to evaluate the effectiveness of standard requirements to identify new hazards, or to support standards development efforts. Specific instructions will be given at the time of assignment.

Electrical and Mechanical Hazards

Chain Saws (TLNN15)

CATEGORY ID: TLNN15

CATID Owner: John Topping

Appropriate Guideline: Chain Saws – Appendix 2

EPHA Analyst: John Topping, EPHA, 301-504-7329, jtopping@cpsc.gov

Technical contact: Caroleene Paul, ESMC, 301-987-2225, CPaul@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all injuries and deaths related to chain saw KICK-BACK incidents. Please use Appendix 2 for a guideline and data record sheet in the investigation. Use SF 182 and NARRATIVE. Obtain copy of medical examiner's or any other official reports in case of fatality.

Rationale for Obtaining Investigations

The investigations will be used to evaluate the effectiveness of standard requirements ANSI B175.1-2012 for gasoline-powered chain saws and UL 1662 for electric powered chain saws. The staff will be monitoring and encouraging industry voluntary action to upgrade these standard requirements.

Electrical and Mechanical Hazards

Automatic Garage Door Operators (CARM10)

CATEGORY ID: CARM10

CATID Owner: Blake Rose

Appropriate Guideline: Automatic Residential Garage Door Operators – Appendix 87

Compliance contacts: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov
Troy Whitfield, CRE, 301-504-7548, twhitfield@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all incidents in which victims become entrapped and die or are seriously injured by the automatic garage doors. Investigation Guideline # 87 should be followed.

Rationale for Obtaining Investigations

Investigations will help the Commission's effort to measure the effectiveness of the requirements in the mandatory standard addressing entrapment incidents.

Electrical and Mechanical Hazards

Glass in Doors, Storm Doors, Patio Doors, and Tub & Shower Doors and Enclosures (CARM05)

CATEGORY ID: CARM05

CATID Owner: Daniel Dunlap

Appropriate Guideline: Architectural Glass – Appendix 52

Compliance contact: Daniel Dunlap, CRE, 301-504-7733, DDunlap@cpsc.gov

Technical contact: Brian Baker, LSM, 301-987-2289, bbaker@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign incidents involving injury resulting from the breakage of glass in any of the products listed in the title above. Obtain specific measurements of all glass panels incorporated in the involved product design. If possible, obtain a photo and/or a sample of the broken glass. Before the investigation, a determination should be made by telephone of when the product was installed. If the product was purchased (or the glass was installed) before July 7, 1977, do not complete an on-site investigation. In these cases, complete the form 182 and report findings. If the product was purchased after July 7, 1977, or the glass was installed after July 7, 1977, an on-site investigation should be made.

Rationale for Obtaining Investigations

16 CFR part 1201 includes safety requirements designed to reduce or eliminate unreasonable risks of death or serious injury to consumers when glass is broken by human contact. An investigation may uncover unsafe products that contain glass that does not comply with the Architectural Glazing standard, and thus, facilitate Commission enforcement of the standard.

Children's Products

Toys (TYNN01)

CATEGORY ID: TYNN01

CATID Owner: Yongling Tu

Appropriate Guidelines: Small Parts – Appendix 48
Toys – Appendix 27
Structural Entrapment – Appendix 35

EPHA Analyst: Yongling Tu, EPHA, 301-504-7841, ytu@cpsc.gov

Engineering contacts: Susan Bathalon, EXHR, 301-987-2282, SBathalon@cpsc.gov
Ben Mordecai, LSM, 301-987-2506, BMordecai@cpsc.gov

Health Sciences contact: Suad Wanna-Nakamura, HSPP, 301 987 2550, snakamura@cpsc.gov

Compliance contact: Carolyn Manley, CRE, 301-504-7607, cmanley@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all deaths involving children associated with toys.

Rationale for Obtaining Investigations

Serious incidents involving children's toys continue to be of interest to the Commission, staff, and consumers. There are frequent requests for updated information. Findings from investigations continue to be used for various safety efforts, including voluntary standards activities, mandatory standards, and review in accordance with Section 106 of the 2008 Consumer Product Safety Improvement Act of 2008 (CPSIA), and public awareness campaigns, such as during the holiday season. Of particular interest are incidents involving swallowed magnets, impactions and choking risks of small toys in the throat of victims, projectile toys, and fires caused by batteries.

Children’s Products

Nursery Equipment (TYNN31)

CATEGORY ID: TYNN31

CATID Owner: Risana Chowdhury

Appropriate Guidelines: Nursery Products – Appendix 46
Structural Entrapment – Appendix 35

Children’s Program Manager: Hope Nesteruk, ESMC, 301-987-2579, hnesteruk@cpsc.gov

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, AQin@cpsc.gov

Compliance contacts:

(Cribs) Justin Jirgl, CRE, 301-504-7814, jjirgl@cpsc.gov

Carolyn Manley, CRE, 301-504-7607, cmanley@cpsc.gov

(Nursery Products) Keysha Walker, CRE, 301-504-6820, kwalker@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

There are specific questions that have been developed for sleep-environment products that need to be asked at the time of investigation, and these will be provided at the time of assignment from Headquarters. Furthermore, there are additional documents available through Headquarters (besides the guidelines above) that provide very specific guidance on certain hardware and mattress-fit-related issues. Prior to initiating an assignment on a sleep environment product, if the assignment involves a crib, contact Justin Jirgl to check if he has specific questions regarding the investigation, otherwise contact a member of the Team above for further guidance.

For all other nursery products, cases will usually be assigned from Headquarters. Prior to initiating an assignment on a durable nursery product, contact the CPSIA project manager for that product, or Hope Nesteruk, Children’s Program Manager.

Rationale for Obtaining Investigations

Information on deaths, entrapments, other “near miss” non-fatal incidents, and serious injuries involving nursery equipment is important in evaluating the need for revisions to voluntary or mandatory standards as mandated by CPSIA. As indicated in the Criteria section above, if Field initiates any investigation on a nursery product, consultation with Headquarters staff first will ensure that any specific questions are answered. *In general, we are interested in incidents involving failures of the nursery equipment.*

Children's Products

Playground Equipment (TYNN32)

CATEGORY ID: TYNN32

CATID Owner: Khalisa Phillips

Appropriate Guideline: Playground Equipment – Appendix 39

Primary contact: Khalisa Phillips, ESHF, 301-987-2592, kphillips@cpsc.gov

EPHA Analyst: James Tark, EPHA, 301-504-7707, JTark@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, BRose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all deaths and serious head injuries to children that involved playground equipment. Where a “fall” has occurred, please document the fall height and specific injury especially if the fall is less than 2 feet. Also, make note of the playground surface material, including the depth of loose surfacing. Communicate with the primary contact to coordinate a technical staff to potentially visit the site to conduct impact testing.

Rationale for Obtaining Investigations

Information on serious incidents involving playground equipment will be used in the revision of the voluntary standards for home playground equipment, public playground equipment, soft contained playground equipment often found in "pay-for-play" settings or fast food restaurants, and in the development of voluntary standards for public playground equipment intended for very young children. Incidents involving entrapment are of particular concern, as are head injuries from falls.

Children's Products

Children's Products, General (TYNN05)

CATEGORY ID: TYNN05

CATID Owner: Hope Nesteruk

Appropriate Guidelines: Use those issued for specific products

EPHA Analyst: Risana Chowdhury, EPHA, 301-504-7334, rchowdhury@cpsc.gov

Backup contact: Hope Nesteruk, ESMC, 301-987-25479, hnesteruk@cpsc.gov

Compliance contacts: Carolyn Manley, CRE, 301-504-7607, cmanley@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Deaths and serious injuries associated with children's products may be assigned throughout the year, depending upon Commission requirements. A newly identified serious emerging hazard involving a children's product may also be assigned under this category. These assignments should be made after consultation with Headquarters staff.

Rationale for Obtaining Investigations

Serious incidents involving children's products are of continued interest to the Commission and there are frequent requests for additional information. In addition, in support of CPSIA, there may be renewed interest in specific children's products which may, in turn, generate an increased number of requests for in-depth investigations on various children's products.

Children's Products

Childhood Pool/Spa & Fatal Submersions/Drownings (TYNN26)

CATEGORY ID: TYNN26

CATID Owner: Ted Yang

Appropriate Guideline: Swimming Pools, Spas, & Hot Tubs – Appendix 75

EPHA Analyst: Ted Yang, EPHA, 301-504-7838, tyang@cpsc.gov
Compliance Contact: Troy Whitfield, CRE, 301-504-7548, twhitfield@cpsc.gov
Backup contacts: Susan Bathalon, EXHR, 301-987-2282, sbathalon@cpsc.gov
Brian Baker, LSM, 301-987-2289, BBaker@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign for follow-up telephone investigation fatal submersion/drowning incidents of children younger than 5 years of age associated with pools and spas only after consultation with headquarters staff. For incidents involving pool and spa entrapments, please refer to C&R entry for Pool and Spa Entrapments.

It is important to collect as much information about the type of pool/spa and the incident scenario. The latest version of the annual pool or spa submersion report can be found at: [https://www.cpsc.gov/s3fs-public/Pool or Spa Submersion Estimated Nonfatal Drowning Injuries and Reported Drownings May 2019.pdf?mW8FxiPVFOI3UErKzePwJ.JNoCc79yY5](https://www.cpsc.gov/s3fs-public/Pool%20or%20Spa%20Submersion%20Estimated%20Nonfatal%20Drowning%20Injuries%20and%20Reported%20Drownings%20May%202019.pdf?mW8FxiPVFOI3UErKzePwJ.JNoCc79yY5)

Rationale for Obtaining Investigations

There were, on average, 4,800 pool- and spa- related emergency department (ED)-treated submersion injuries each year from 2016 to 2018, and 269 pool and spa related fatalities per year from 2014-2016 involving children younger than 5 years of age. Fatal submersions/drownings are one of the leading causes of death for young children but, with efforts from the safety community, appear to be holding steady.

There are several types of residential swimming pools, including in-ground and above-ground pools. Children can also drown in spas or hot tubs. Within the above-ground portable swimming pool category, several construction designs are available to consumers. In particular, inexpensive, large, deep, portable pools that can accommodate several adults and children, and large portable juvenile pools with elaborate built in play activities are part of the consumer market. Also, recreational spa (hot tub) products are becoming less expensive and more widely available to consumers. The extent to which these products are influencing drowning data is not yet clear, but certainly traditional layers of protection against drowning such as 4-sided fencing are less likely to be used with these products.

Portable Pools: A portable pool is classified as any pool that can be set up/taken down or moved to another location with relative ease. There are three categories of portable pools:

- **Inflatables** – pools with an air-filled rim and flexible sides that are held up by the water pressure in the pool. They are also called “soft-sided, self-rising, or self-setting” pools, because the walls rise into place as the water is added.
- **Framed portable pools** – pools that have a tubular metal or plastic frame attached to some type of flexible material that forms the pool.
- **Wading pools** – pools that are less than 18 inches deep. Some have rigid sides and some are inflatable. This does not include in-ground wading pools.

To develop more effective drowning prevention strategies, it is essential to have a good understanding of products involved in drowning incidents and the layers of protection that were in place. As such, staff is emphasizing the continued need to collect detailed information on pool and spa incidents. Each year the data collected is used for an annual report on pool and spa drowning statistics, that also attempts to identify newly emerging product hazards, such as the large deep portable pools. The collective updated information is also used for CPSC's annual drowning prevention educational campaign. Other groups use this information as well to work on this issue.

Children's Products

Pool and Spa Entrapments (TYNN26)

CATEGORY ID: TYNN26

CATID Owner: Ted Yang

Appropriate Guideline: Swimming Pools, Spas, & Hot Tubs – Appendix 75

EPHA Analyst: Ted Yang, EPHA, 301-504-7838, TYang@cpsc.gov

Compliance contact: Troy Whitfield, CRE, 301-504-7548, TWhitfield@cpsc.gov

Technical contact: Mark Eilbert, LSM, 301-987-2232, meilbert@cpsc.gov

It is important to collect as much information about the type of product(s) and the incident scenario. The latest version of the circulation/suction entrapment report can be found at

https://www.cpsc.gov/s3fs-public/2019_Circulation_Entrapment.pdf?IzoaBIClbtP70RRVUJqPK3RI4Ikxyety

Criteria for Assigning Non-NEISS Investigations

Assign for on-site investigation all fatal and non-fatal incidents (involving victims of any age) that involved entrapment, especially in the drainage system of a pool, spa (hot tub) only after consultation with headquarters staff. If the incident involved a public pool or spa, please contact Troy Whitfield, CRC, for specific instructions.

Rationale for Obtaining Investigations

From 2014 to 2018, CPSC staff received reports of 11 incidents of circulation/suction entrapments including: two fatalities and nine injuries related to pools, spas, and whirlpools. Spas are used primarily for recreation whereas whirlpools are for bathing. CPSC staff issued 2005 guidelines for reducing pool and spa entrapment hazards.

Investigation of entrapment cases will allow staff to assess the efficacy of these guidelines. With the Pool and Spa Safety Act, there is emphasis on making public pools and spas safer. When these entrapment incidents occur, the detailed information collected is vital to determine whether pools and spas are meeting requirements or if new entrapment issues need to be addressed. The entrapment data is updated at least annually, and this information is shared with groups working on these issues.

Children's Products

Infant Bathing Product Fatal Submersions/Drownings (TYNN26)

CATEGORY ID: TYNN26

CATID Owner: Ted Yang

Appropriate Guidelines: Bathtub Incidents – Appendix 111
Baby Bath Seats – Appendix 130

EPHA Analyst: Ted Yang, EPHA, 301-504-7838, tyang@cpsc.gov
Backup contact: Celestine Kish, ESHF, 301-987-2547, ckish@cpsc.gov
Compliance contacts: Keysha Walker, CRE, 301-504-6820, kwalker@cpsc.gov

It is important to collect as much information about the type of product(s) and the incident scenario. The latest version of the annual at-home submersion/drowning report can be found at <http://www.cpsc.gov/pagefiles/129419/nonpoolsb2012.pdf>.

Criteria for Assigning Non-NEISS Investigations

For fatal submersion/drowning incidents involving children 12 months and younger that occurred in bathtubs and/or involved other infant bathing products, please assign for follow-up telephone investigation only after consultation with headquarters staff. Please note any infant bathing products that were used at the time of the incident.

The following product definitions and classifications were developed in an effort to better clarify the incident data:

- **Bath seat** – A product that contains a bottom for sitting. It is used for an occupant who is seated upright (80-110 degrees). It provides some level of rigid support to the occupant's back, sides, and/or front. It is not intended to retain water and is not inflatable.
- **Bath ring** – Similar to a bath seat, but with no integral seat bottom (a ring on top with columns that attach to the tub). If there is a seat bottom, it is removable and could be made of a foam type of material.
- **Infant bathtub** – A portable rigid structure intended to retain water.
- **Bathing aids** – Other miscellaneous devices not included above. This could include cushions (not inflatable) or other products used for bathing.
- **Combination** – A product that can be more than one of the above such as a bath seat/ infant bathtub product where, based on its configuration, it can be either.
- **Infant sling** – A cloth attached to an infant bathtub or frame for use in an infant bath tub.
- **Infant bather** – A cloth attached to a frame that can be used with an infant bath tub or directly in an adult tub or sink. It is not intended to retain water.

Rationale for Obtaining Investigations

From 2006 to 2010, CSPC staff is aware of 289 fatal submersions involving children younger than 12 months of age in bathing products. The infant bathing product market is changing and surveillance is needed to stay informed of new products and hazards involved with these fatalities.

Children’s Products

Infant Fatal Suffocation (TYNN06)

CATEGORY ID: TYNN06

CATID Owner: Suad Wanna-Nakamura

Appropriate Guidelines: Use appropriate guidelines

Program/Project Manager: Suad Wanna-Nakamura, HSPP, 301 987 2550, snakamura@cpsc.gov
Backup contacts: Jacqueline Ferrante, HSPP, 301-987-2607, JFerrante@cpsc.gov
Hope Nesteruk, ESMC, 301-987-2579, hvesteruk@cpsc.gov
Compliance contact: Keysha Walker, CRE, 301-504-6820, kwalker@cpsc.gov

It is important to collect as much information about the type of product(s) and the incident scenario. Be sure to include all above contacts in the distribution of the completed IDI.

Criteria for Assigning Non-NEISS Investigations

For fatal suffocation incidents involving children under 12 months of age that occurred in infant sleep products, such as cribs, bassinets, play yards, inclined sleep products, on pillows and on adult beds, air mattresses, . . . and/or involved other infant products, please assign for follow-up telephone investigation only after consultation with HS staff. Please note any infant products that were used at the time of the incident. For specific instructions, contact HS staff.

The following product definitions and classifications were developed in an effort to better clarify the incident data in infant sleep products as defined in Section 104(b) of the CPSIA.

Cribs are defined as either *full-size* or *non-full-size*:

- “A *full-size crib* has specific interior dimensions of $28 \pm 5/8$ inches (71 ± 1.6 centimeters) in width and $52\frac{3}{8} \pm 5/8$ inches (133 ± 1.6 centimeters) in length and is designed to provide sleeping accommodations for an infant.”
- “A *non-full-size crib* may be either smaller or larger than a full-size crib, or shaped differently than the usual rectangular crib. The category of non-full-size cribs includes oversized, specialty, undersized, and portable cribs, but does not include any product with mesh/net/screen siding, non-rigidly constructed cribs, cradles, car beds, baby baskets, or bassinets. The CPSC standard for non-full-size cribs does not apply to play yards, which are mesh or fabric-sided products.”
- See: <https://www.federalregister.gov/documents/2010/12/28/2010-32178/safety-standards-for-full-size-baby-cribs-and-non- full-size-baby-cribs-final-rule>.

Bassinet/cradle is defined as a small bed designed primarily to provide sleeping accommodations for infants, supported by free standing legs, a stationary frame/stand, a wheeled base, a rocking base, or which can swing relative to a stationary base.” While in a rest position, a bassinet/cradle is intended to have a sleep surface less than or equal to 10° from horizontal. The bassinet/cradle is not intended to be used beyond the age of approximately five months or when a child is able to push up on his hands and knees. Bassinet and cradle attachments for non-full-size cribs or play yards are considered part of the bassinet/cradle category, as are bedside sleepers that can be converted to four-sided bassinets not attached to a bed.

See: <https://www.federalregister.gov/documents/2013/10/23/2013-24203/safety-standard-for-bassinets-and-cradles>.

Play yards are defined as a “framed enclosure that includes a floor and has mesh or fabric sided panels primarily intended to provide a play or sleeping environment for children. It may fold for storage or travel.” Play yards are intended for children who are less than 35 inches tall, who cannot climb out of the product. Some play yards include accessory items that attach to the product, including mobiles, toy bars, canopies, bassinets, and changing tables.

See: <https://www.federalregister.gov/documents/2012/08/29/2012-21168/safety-standard-for-play-yards>.

Inclined Sleep products, such as:

- *Hammocks* (typically constructed of fabric and suspended from one or two points, either above or on either side; constructed of various materials; generally conform to the shape of the child when placed in the product; can either be supported by a frame or other structure, such as a ceiling);
- *Newborn or infant frame* type (intended to be placed on the floor; self-supporting; typically use a metal frame with a rigid or semi-rigid sleeping surface; base may be stationary or allow side to side rocking; may be intended for use by either newborns or infants, or both, depending on the size);
- *Compact* (freestanding with the bottom of the seat a maximum of 6 inches above the floor; generally constructed of foam with a fixed seat back angle between 10° and 30°; intended to be used on the floor); and
- *Products intended for use with newborns* are generally similar in design to products intended for infants, except that products intended for use with newborns have a seat back length of 17 inches or less.
- See: <https://www.federalregister.gov/documents/2017/04/07/2017-06875/safety-standard-for-infant-inclined-sleep-products>.

Other products used/advertised for sleep and non-regulated products (*i.e.*, no performance standard), such as:

- positioners, a host of sleep aid products, can be more than one product
- positioner devices

Products used but not intended for infant sleep

- adult beds
- toddler beds
- standard mattresses and air mattresses

Rationale for Obtaining Investigations

Commission in rulemaking for crib bumpers, crib mattresses, inclined sleep products.

Frequent questions about other suffocation hazards including air mattresses, and provide guidance to caregivers on hazards associated with products not intended for infants to sleep in/on.

Children's Products

Childhood Fatalities Involving Instability or Tip-over of Televisions, Furniture, and Appliances (TYNN40)

CATEGORY ID: TYNN40

CATID Owner: Adam Suchy

EPHA Analyst: Adam Suchy, EPHA, 301-504-7301, asuchy@cpsc.gov
Health Science contact: Suad Wanna-Nakamura, HSPP, 301 987 2550, snakamura@cpsc.gov
Engineering contact: Michael Taylor, LSM, 301-987-2338, MTaylor@cpsc.gov

It is important to collect as much information about the type of product(s) and the incident scenario. The latest version of the instability or tip-over report can be found at www.cpsc.gov. Search for the report by document title “Product Instability or Tip-Over Injuries and Fatalities Associated with Televisions, Furniture, and Appliances.”

Criteria for Assigning Non-NEISS Investigations

Assign for on-site investigations fatalities involving instability or tipover of furniture, appliances, and televisions only after consultation with headquarters staff.

Rationale for Obtaining Investigations

For 2015-2017, on average, there were 28,300 instability or tip-over injuries treated annually in emergency departments related to televisions, furniture, and appliances. For 2000-2017, 542 instability or tip-over fatalities were associated with televisions, furniture, and appliances. To develop effective intervention strategies, it is important to have a good understanding of the incident scenarios (age of victim, activities, and behaviors of the victims prior to the incident) and specific characteristics of products involved (such as dimensions, for televisions whether it is a flat screen or a CRT, the locations of the feet of the furniture relative to the front of the unit involved, and the type of flooring that the furniture rested upon, and whether the item was anchored). This is particularly important when major changes in available product designs and consumer consumption happen within a relatively short time, as is happening with televisions. Staff is monitoring fatalities involving instability and tip-over of televisions, furniture, and appliances to determine key details and factors involved. This information will be used to inform the public about ways to avoid this poorly recognized hazard scenario, and might lead to safer product designs.

Children’s Products

Childhood Injuries and Fatalities Involving Corded Window Coverings (TYNN45)

CATEGORY ID: TYNN45

CATID Owner: Christopher Nguyen

Includes blinds, shades, curtains, drapery, and room dividers

Appropriate Guideline: Window Covering Cords – Appendix 136

Compliance contact: Christopher Nguyen, CDI, 301-504-7871, CNguyen@cpsc.gov

Technical contact: Rana Balci-Sinha, ESHF, 301-987-2584, rbalcisinha@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Investigate fatalities and injuries involving corded window coverings only after consultation with headquarters staff.

Rationale for Obtaining Investigations

CPSC staff is aware of more than 180 fatalities and over 100 non-fatal incidents related to corded window coverings that were reported to have occurred since 1996. To develop effective intervention strategies, it is important to have a good understanding of the incident scenarios (age of victim, activities, and behaviors of the victims prior to the incident) and specific characteristics of products involved. Investigations will be used to support compliance work under Section 15 of the CPSA, to evaluate the effectiveness of voluntary standards, or to propose improvements in the voluntary standards as well as conduct public awareness campaigns.

Chemical Hazards

Chemical Hazards, General (CHNN01)

CATEGORY ID: CHNN01

CATID Owner: Cheryl Scorpio

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, aqin@cpsc.gov
Backup contact: Cheryl Scorpio, HSPP, 301-987-2572, cscorpio@cpsc.gov
Backup contact: Kris Hatlelid, HSTR, 301-987-2558; KHatlelid@cpsc.gov
Compliance contact: Stephanie Synnott, CRE, 301-504-7847, SSynnott@cpsc.gov
Compliance back-up: Stephen Lee, CRE, 301-504-7844, SLee@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Staff will periodically make assignments. Incidents involving chemicals contained in products not specifically included in current Commission Operating Plan projects may be of particular interest. Incidents will be assigned under this category as the need is identified by the subject matter experts. A specific questionnaire may be available to investigate certain products. If there is a specific questionnaire, the assignment message will direct the investigator to contact the analyst to obtain any such questionnaire prior to initiating an investigation.

Rationale for Obtaining Investigations

Information on the circumstances of chemical hazard incidents is needed to support work under the Federal Hazardous Substances Act (FHSA) and the Consumer Product Safety Act (CPSA). Details on deaths and adverse health effects involving a wide range of household products including furnishings, construction materials, and appliances are needed to support work under the Commission's toxicity assessment portion of the Chemical Hazards Project. Investigations will be used to evaluate the need for product performance standards, warning labels for product use and health hazards, and industry voluntary standards to reduce the risk of injury due to chemicals in consumer products.

Chemical Hazards

Battery Ingestions (CHNN11)

CATEGORY ID: CHNN11

CATID Owner: Cheryl Scorpio

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, aqin@cpsc.gov
Backup contacts: Cheryl Scorpio, HSPP, 301-987-2572, cscorpio@cpsc.gov.
Doug Lee, EXHR, 301-987-2073, dlee@cpsc.gov
Compliance contacts: Carolyn Manley, CRE, 301-504-7607, cmanley@cpsc.gov
Sammy Sarwar, CRE, 301-504-7682, SSarwar@cpsc.gov
Blake Rose, CRE, 301-504-7613, BRose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Staff will assign incidents involving children less than five years old. As a general rule, all battery ingestion incidents involving hospitalization, serious health effects, or death should be assigned. A questionnaire is available to investigate battery ingestions. Investigators should contact the analyst prior to initiating an investigation to obtain any such questionnaire.

Rationale for Obtaining Investigations

Battery ingestions, especially involving small button or coin sized batteries, are a growing concern. At least 20 deaths have occurred from battery ingestions since 1995, and since 1998 the estimated number of emergency department treated injuries has increased more than 2.5 times. Investigations will provide important information for mitigating this hazard, including the precise type of battery ingested, the product the battery came from, and the circumstances surrounding the child accessing the battery.

Chemical Hazards

Poison Prevention Packaging (PPPA) (CHNN08)

CATEGORY ID: CHNN08

CATID Owner: Cheryl Scorpio

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, aqin@cpsc.gov

Backup contacts: Mark Eilbert, LSM, 301-987-2232, MEilbert@cpsc.gov

Cheryl Scorpio, HSPP, 301-987-2572, cscorpio@cpsc.gov

Compliance contact: Stephanie Synnott, CRE, 301-504-7847, SSynnott@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Staff will assign incidents involving children less than five years old. As a general rule, all incidents involving hospitalization, serious health effects, or indications that a child-resistant (CR) closure was ineffective should be assigned. A specific questionnaire may be available to investigate certain products or classes of products. Investigators should contact the analyst prior to initiating an investigation to obtain any such questionnaire.

Rationale for Obtaining Investigations

Information on the circumstances of chemical hazard incidents is needed to support work under the Poison Prevention Packaging Act. Investigations will be used to evaluate the need for and effectiveness of CR closures with respect to specific products or product classes.

Chemical Hazards

Carbon Monoxide, General (STNN25)

CATEGORY ID: STNN25

CATID Owner: Matt Hnatov

Appropriate Guideline: All Carbon Monoxide (CO) Poisoning Related Incidents – Appendix 16

EPHA Analyst: Matthew Hnatov, EPHA, 301-504-7403, mhnatov@cpsc.gov

Backup contact: Ronald Jordan, ESMC, 301-987-2219, rjordan@cpsc.gov

Rik Khanna EXHR, 301-987-2282, rkhanna@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Investigate all deaths due to non-fire carbon monoxide (CO) from a consumer product (i.e. excluding motor vehicle exhaust). Deaths and nonfatal incidents related to carbon monoxide emissions are also investigated with the following products of special interest:

- portable LP gas camping heaters (including those that use 1 - 20 lb. tanks and commercial units – over 20,000 BTUs – used by consumers)
- camping lanterns
- gas-fired furnaces manufactured beginning in 1987
- gas-fired boilers
- gas wall furnaces
- vented and unvented gas space heaters
- tankless hot water heater

Use the guideline and data record sheets related to *General Information*, *Injured Persons*, *CO Alarms* (if applicable), and *Residence Environment*. In addition, use the guideline and data record sheet applicable to the incident product. If the product is vented, complete the data record sheet related to *Condition of Vented Products*.

Rationale for Obtaining Investigations

Investigations will support on-going work of the Combustion Appliance PAT team in evaluating, monitoring, and recommending changes to the voluntary standards for fuel-burning products. CPSC staff has estimated that there was an annual average of 162 non-fire, accidental CO poisoning deaths related to consumer products between 2013 and 2015. Investigations will also support the monitoring of voluntary standards for CO alarms.

Chemical Hazards

Carbon Monoxide Poisoning From Generators and Engine Powered Consumer Products (STNN36)

CATEGORY ID: STNN36

CATID Owner: Matt Hnatov

Appropriate Guideline: All Carbon Monoxide Poisoning-Related Incidents – Appendix 16
(See page 46 in Guideline)

EPHA Analyst: Matthew Hnatov, EPHA, 301-504-7403, mhnatov@cpsc.gov
Backup contact: Janet Buyer, ESMC, 301-987-2293, jbuyer@cpsc.gov
Compliance contact: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov
Backup contact: Troy Whitfield, CRE, 301-504-7548, twhitfield@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Investigate all consumer injuries and deaths due to carbon monoxide (CO) from portable and stationary generators and other engine-driven consumer products (e.g., power-washers or sprayers, floor buffers, riding mowers, ATVs). Use the guideline, paying special attention to the section titled – *Instructions for Collecting Specific Information on Generators and Engine-Powered Consumer Products*, and complete the data record sheets related to *General Information, Injured Persons, and CO Alarms* (if applicable).

Rationale for Obtaining Investigations

Investigations will support the Portable Generator project. CPSC is aware of 834 CO poisoning fatalities from 645 incidents that were associated with engine-driven tools, or engine-driven tools used in conjunction with another potentially CO emitting consumer product from 2008 through 2018. Eighty-nine percent of these fatalities were associated with generators or generators used in conjunction with other fuel-burning products. From 2013 through 2015, generators were associated with about 40% of the total estimated CO deaths associated with consumer products. In 2006, the Commission voted to publish an Advance Notice of Proposed Rulemaking to begin research to develop technology to lower the risk of CO poisoning associated with portable generators. In 2016, the Commission voted to publish an NPR that is based on reducing portable generators' CO emission rates. The information obtained from incident investigations is valuable in further evaluating the adequacy of the proposed rule as well as alternative strategies, including two voluntary standards for portable generators that adopted CO hazard mitigation requirements in 2018, to address the hazard.

Chemical Hazards

Carbon Monoxide Death Certificates (STNN34)

CATEGORY ID: STNN34

CATID Owner: Matt Hnatov

Appropriate Guideline: All Carbon Monoxide Poisoning-Related Incidents – Appendix 16
(for technical reference only)

EPHA Analyst: Matthew Hnatov, EPHA, 301-504-7403, mhnatov@cpsc.gov

Backup contact: Rik Khanna, EXHR, 301-987-2282, rkhanna@cpsc.gov

Compliance contact: Blake Rose, CDI, 301-504-7613, brose@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Headquarters will make assignments from death certificates, coroner's or medical examiner's reports where cause of death was carbon monoxide (CO) poisoning / intoxication. Due to the lag in state reporting of death certificates and due to the contact restrictions placed on investigations initiated from death certificates, **investigators are not required to complete the Appendix 16 Data record sheets for these assignments.** If CO is determined to be due to automobile exhaust or an intentional act, then investigators should complete a screening report as instructed in the Field Manual for Investigation Procedures and Reporting Techniques.

NOTE: If the CO poisoning is determined to be fire-related AND there is no special study currently associated with the product/hazard involved, then investigators should complete an abbreviated report as instructed in the Field Manual for Investigation Procedures and Reporting Techniques.

Rationale for Obtaining Investigations

The CPSC Directorate for Epidemiology staff generates annual estimates of non-fire CO deaths associated with consumer products. The percentage of CO deaths attributed to each type of consumer product is determined by the information produced in these investigations. Any in-depth information surrounding these fatal scenarios adds to the quality of information that can be shared with the public. The annual CO fatality estimates are used in Commission safety announcements and press releases, and are of interest to the medical community and the gas appliance industry.

Sports and Recreation

All-Terrain Vehicle (ATV) & Utility Vehicle (UTV) Deaths (TYNN09)

CATEGORY ID: TYNN09

CATID Owner: John Topping

Appropriate Guideline: All-Terrain Vehicles – Appendix 91

EPHA Analyst: John Topping, EPHA, 301-504-7329, jtopping@cpsc.gov
 Project/program lead: Caroleene Paul, ESMC, 301-987-2225, CPaul@cpsc.gov
 Compliance Defects Contact: Blake Rose, CDI, 301-504-7613, BRose@cpsc.gov
 Compliance Regulatory Contact: Daniel Dunlap, CRE, 301-504-7733, DDunlap@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all deaths: For all ATV fatalities, verify ATV involvement and provide a description of the accident scenario. Complete the ATVD Online Questionnaire. Of particular interest is the number of wheels, brand, and engine size of the ATV, as well as the ages of the victim and the driver and other essential information mentioned in Appendix 91. If it is determined that the incident vehicle is a Utility Vehicle (UTV), complete the guideline requirements for UTVs, located at the end of Appendix 91.

Rationale for Obtaining Investigations

An all-terrain vehicle is a vehicle with 3 or more wheels, a motor, a seat that the rider straddles, motorcycle-type handlebars, and low-pressure tires. ATVs are designed for off-road use on a variety of surfaces and terrains.

ATV deaths continue to be of interest to the CPSC. The 2008 Consumer Product Safety Improvement Act (CPSIA) required CPSC to mandate the ATV voluntary standard which has requirements for youth ATVs, engineering standards, labeling, etc. In 2009, the mandatory standard became effective. CPSC periodically updates the mandatory standard as the voluntary standard is revised. Investigations are used to evaluate standards and rulemaking requirements.

In November 2014, CPSC published notice of proposed rulemaking for Recreational Off-Highway Vehicles (ROVs). ROVs are off-highway vehicles that have four or more tires, a steering wheel, foot pedals, bench or bucket seats, a roll cage, and can obtain speeds greater than 30 mph. UTVs can have some of the same characteristics, yet some are not equipped with roll bars or cages and they cannot obtain speeds greater than 30 mph. These vehicles are often called ATVs in reports of fatalities; however, these vehicles do not fit the CPSC definition of an ATV. Separate guidelines have been included in Appendix 91 for UTVs, which include ROVs. The characteristics of the driver, passengers, terrain, and incident are of interest in order to support the open rulemaking on ROVs. To aid in distinguishing ROVs from UTVs and ATVs, the make, model, and engine size of the vehicle are of particular interest.

For Distribution on the completed IDI, please include the following:

for ATVs	for UTVs and ROVs
John Topping, Blake Rose, and Daniel Dunlap	John Topping and Blake Rose

Sports and Recreation

Sports-Related Deaths and Serious Injuries (TYNN33)

CATEGORY ID: TYNN33

CATID Owner: John Topping

EPHA Analyst: John Topping, EPHA, 301-504-7329, jtopping@cpsc.gov
Program/project lead: Rick McCallion, EXHR, 301-987-2222, RMCallion@cpsc.gov
Compliance contact: Mel Altman, CDI, 301-504-7419, maltman@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Assign all deaths and serious injuries related to head, neck, and Commotio Cordis/chest impacts (not including motorized vehicle-related incidents) to children under 15 years of age. For deaths involving soccer goal tipovers, assign regardless of decedent's age. If the death or injury resulted from an equipment failure, try to collect the equipment or information regarding the manufacturer and model of the equipment involved.

Rationale for Obtaining Investigations

We are interested in trying to reduce the number of sports-related deaths and injuries to children. Among the injuries, we are especially concerned about serious head injury. Reducing head injuries to children is one of the Commission's stated objectives under the Government Performance and Results Act.

Sports and Recreation

Sports Helmet Project (TYNN34)

CATEGORY ID: TYNN34

CATID Owner: John Topping

Appropriate Guideline: Youth Sports Helmets – Appendix 139

EPHA Analyst: John Topping, EPHA, 301-504-7329, jtopping@cpsc.gov
Program/project leads: Rick McCallion, EXHR, 301-987-2222, RMCallion@cpsc.gov
Ian Hall, LSM, 301-987-2323, IHall@cpsc.gov
Compliance contact: Mel Altman, CDI, 301-504-7419, maltman@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

The Youth Sport Helmets Project will explore the various types of head injuries that occur during youth contact sports while helmets are being worn by the victims. The project will have investigators review incidents that involve various sporting helmets (*i.e.*, football, hockey, lacrosse, *etc.*).

We are interested in finding out the types of helmets worn by youth (18 and under) today, including the relative levels of safety offered by the various designs. We will need to consider incident information in evaluating the adequacy of the existing voluntary standards for helmets (*e.g.*, ASTM, NOCSAE); as well as in determining if there is the need for a mandatory helmet standard. Of particular interest are incidents in which the athletes incurred a head or neck injury while wearing a helmet, or in which it appeared that the helmet didn't function properly (*e.g.*, broke, came off, *etc.*) in an incident situation.

Rationale for Obtaining Investigations

The goal of this project is to collect information to assist CPSC staff in making recommendations to update voluntary standards for helmets worn during contact sports and to update CPSC's information campaign. We are interested in trying to reduce the number of sports helmet related deaths and injuries during youth contact sports while helmets are being worn by the victims. Reducing head injuries to children is one of the Commission's stated objectives under the Government Performance and Results Act.

Emerging Hazards

Emerging Hazards, General (HANN01)

CATEGORY ID: HANN01

CATID Owner: Risana Chowdhury

EPHA Analyst: Risana Chowdhury, EPHA, 301-504-7334, rchowdhury@cpsc.gov

Program/Project Lead: Patricia Adair, EXHR, 301-504-7335, padair@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Headquarters will assign emerging hazard incidents involving fatalities or injuries that are *not covered* by other categories of the Criteria and Rationales.

Telephone or on-site investigations may be requested for high visibility cases. An assignment message will be written specifically for the incident/product.

Rationale for Obtaining Investigations

Investigations will be assigned by headquarters' staff when analyses of incoming reports suggest an emerging trend. These investigations may be motivated by either product type or hazard type. As injury or fatality reports increase with new or modified products that are not covered elsewhere in the Criteria and Rationale documents, investigations specific to the injury scenario, engineering and safety features, and human factors will be assigned. Examples of investigations that may be assigned across products include emerging trends associated with imported goods or trends that are suggested by specific hazard types.

Emerging Hazards

Nano and Emerging Materials (HANN02)

CATEGORY ID: HANN02

CATID Owner: Treye Thomas

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, aqin@cpsc.gov

Technical contacts:

Nanotechnology contact: Joanna Matheson, HSTR, 301-987-2564, JMatheson@cpsc.gov

Emerging Materials (incl. 3D printing): Treye Thomas, EXHR, 301-987-2560, TThomas@cpsc.gov

Compliance contact: Stephanie Synnott, CRE, 301-504-7847, SSynnott@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Incidents involving nanomaterials or emerging materials used in and released from consumer products are of particular interest to staff. Emerging materials are compounds used in the 3D printing of consumer products either by a manufacturer or by a consumer with their own 3D printing device. Examples of emerging materials used in 3D printers include thermoplastic filaments such as poly lactic acid (PLA), metal-containing powders, and liquid polymers. Nanomaterials (*e.g.*, carbon nanotubes, nano silver, titanium dioxide, graphene, zinc oxide) are defined as materials/particles that range from 1 to 100 nanometers in length. Although they may have the same name as a material currently in use, because of their small size, these new materials may demonstrate different physical and chemical properties. Nanomaterials are being used in consumer products with the stated purpose of improving the performance and durability of these products (*e.g.*, sporting goods, clothing, cleaners, toys, paints/coatings, home furnishings, electronics (including 3D printer filaments)).

Incidents can be assigned by headquarters staff, or by field staff *in consultation with* headquarters staff. A specific questionnaire may be available to investigate certain products. If there is a specific questionnaire, the assignment message will direct the investigator to contact the analyst to obtain any such questionnaire prior to initiating an investigation. If there are any questions during an investigation, the field investigator should contact the person(s) at headquarters listed above as points-of contact for the specific product area.

Rationale for Obtaining Investigations

Information on the circumstances of chemical hazard incidents due to exposure to nanomaterials and/or emerging materials in consumer products is needed to support work under the Federal Hazardous Substance Act (FHSA) and the Consumer Product Safety Act (CPSA). While a great deal of resources have been devoted to developing these technologies, much less has been on understanding health and safety. Nanomaterials represent a wide range of compounds that may vary significantly in their structure, physical and chemical properties, as well as potentially in their behavior in the environment and human body. Details on deaths and adverse health effects involving a wide range of consumer products that contain nanomaterials and emerging materials, are needed to support work under the Commission's toxicity assessment portion of the Chemical Hazards Project. Investigations will be used to evaluate voluntary standards to reduce the risk of injury resulting from exposures to emerging materials incorporated in and released from consumer products.

Emerging Hazards

Wearable Technology Products (HANN02)

CATEGORY ID: HANN02

CATID Owner: Treye Thomas

EPHA Analyst: Angie Qin, EPHA, 301-504-7810, aqin@cpsc.gov
Wearable technology contact: Treye Thomas, EXHR, 301-987-2560, TThomas@cpsc.gov
Compliance contact: Stephanie Synnott, CRE, 301-504-7847, SSynnott@cpsc.gov

Criteria for Assigning Non-NEISS Investigations

Headquarters staff will periodically make assignments. Incidents involving wearable technology products are of particular interest to staff. Wearable technology products are also known as “smart products.” They are consumer products that are worn on the body which contain electronic components. Examples include smart clothing with sensors, virtual reality game sets, fitness trackers and glasses that augment reality.

Incidents can be assigned by headquarters staff or field staff *in consultation with* headquarters staff. A specific questionnaire may be available to investigate certain products. If there is a specific questionnaire, the assignment message will direct the investigator to contact the analyst to obtain any such questionnaire prior to initiating an investigation. If there are any questions during an investigation, the field investigator should contact the person(s) at headquarters listed above as point-of contact for the specific product area.

Rationale for Obtaining Investigations

Information on the circumstances of chemical hazard incidents due to wearable technology products is needed to support work under the Federal Hazardous Substance Act (FHSA) and the Consumer Product Safety Act (CPSA). Details on deaths and adverse health effects involving a wide range of consumer products that fall under the category of wearable technology, are needed to support work under the Commission’s toxicity assessment portion of the Chemical Hazards Project as well as electrical, mechanical and internet of things (IOT) programs. Investigations will be used to evaluate voluntary standards to reduce the risk of injury resulting from exposures to hazards resulting from the use of wearable technology products.