# AMENDMENT TO THE RULES COMMITTEE PRINT OF H.R. 3523

#### OFFERED BY MR. THOMPSON OF MISSISSIPPI

Page 1, strike line 1 and insert the following:

## 1 TITLE I—CYBER INTELLIGENCE

#### 2 SHARING AND PROTECTION ACT

- 3 SEC. 101. SHORT TITLE.
  - Page 1, line 2, strike "Act" and insert "title".
  - Page 1, line 4, strike "2." and insert "102."
  - Page 17, line 20, strike "Act" and insert "title".
  - Page 18, line 20, strike "Act" and insert "title".

At the end of the bill, add the following new title:

### 4 TITLE II—PROMOTING AND EN-

- 5 HANCING CYBERSECURITY
- 6 AND INFORMATION SHARING
- 7 EFFECTIVENESS ACT OF 2012
- 8 SEC. 201. SHORT TITLE.
- 9 This title may be cited as the "Promoting and En-
- 10 hancing Cybersecurity and Information Sharing Effective-
- 11 ness Act of 2012" or the "PRECISE Act of 2012".

| 1  | SEC. 202. DEPARTMENT OF HOMELAND SECURITY CYBER-           |
|----|--|
| 2  | SECURITY ACTIVITIES.                                       |
| 3  | (a) IN GENERAL.—Subtitle C of title II of the Home-        |
| 4  | land Security Act of 2002 is amended by adding at the      |
| 5  | end the following new sections:                            |
| 6  | "SEC. 226. NATIONAL CYBERSECURITY AUTHORITY.               |
| 7  | "(a) In General.—To protect Federal systems and            |
| 8  | critical infrastructure information systems and to prepare |
| 9  | the Nation to respond to, recover from, and mitigate       |
| 10 | against acts of terrorism and other incidents involving    |
| 11 | such systems and infrastructure, the Secretary shall—      |
| 12 | "(1) develop and conduct risk assessments for              |
| 13 | Federal systems and, subject to the availability of        |
| 14 | resources and upon request from critical infrastruc-       |
| 15 | ture owners and operators, critical infrastructure in-     |
| 16 | formation systems in consultation with the heads of        |
| 17 | other agencies or governmental and private entities        |
| 18 | that own and operate such systems, that may in-            |
| 19 | clude threat, vulnerability, and impact assessments        |
| 20 | and penetration testing, or other comprehensive as-        |
| 21 | sessments techniques;                                      |
| 22 | "(2) foster the development, in conjunction with           |
| 23 | other governmental entities and the private sector,        |
| 24 | of essential information security technologies and ca-     |
| 25 | pabilities for protecting Federal systems and critical     |
| 26 | infrastructure information systems, including com-         |

| 1  | prehensive protective capabilities and other techno- |
|----|--|
| 2  | logical solutions;                                   |
| 3  | "(3) acquire, integrate, and facilitate the adop-    |
| 4  | tion of new cybersecurity technologies and practices |
| 5  | in a technologically and vendor-neutral manner to    |
| 6  | keep pace with emerging terrorist and other cyberse- |
| 7  | curity threats and developments, including through   |
| 8  | research and development, technical service agree-   |
| 9  | ments, and making such technologies available to     |
| 10 | governmental and private entities that own or oper-  |
| 11 | ate critical infrastructure information systems, as  |
| 12 | necessary to accomplish the purpose of this section; |
| 13 | "(4) establish and maintain a center to be           |
| 14 | known as the 'National Cybersecurity and Commu-      |
| 15 | nications Integration Center' to serve as a focal    |
| 16 | point with the Federal Government for cybersecu-     |
| 17 | rity, responsible for—                               |
| 18 | "(A) the coordination of the protection of           |
| 19 | Federal systems and critical infrastructure in-      |
| 20 | formation systems;                                   |
| 21 | "(B) the coordination of national cyber in-          |
| 22 | cident response;                                     |
| 23 | "(C) facilitating information sharing, inter-        |
| 24 | actions, and collaborations among and between        |
| 25 | Federal agencies, State and local governments,       |

| 1  | the private sector, academia, and international    |
|----|--|
| 2  | partners;  |
| 3  | "(D) working with appropriate Federal              |
| 4  | agencies, State and local governments, the pri-    |
| 5  | vate sector, academia, and international part-     |
| 6  | ners to prevent and respond to terrorist and       |
| 7  | other cybersecurity threats and incidents involv-  |
| 8  | ing Federal systems and critical infrastructure    |
| 9  | information systems pursuant to the national       |
| 10 | cyber incident response plan and supporting        |
| 11 | plans developed in accordance with paragraph       |
| 12 | (8);   |
| 13 | "(E) the dissemination of timely and ac-           |
| 14 | tionable terrorist and other cybersecurity         |
| 15 | threat, vulnerability, mitigation, and warning     |
| 16 | information, including alerts, advisories, indica- |
| 17 | tors, signatures, and mitigation and response      |
| 18 | measures, to improve the security and protec-      |
| 19 | tion of Federal systems and critical infrastruc-   |
| 20 | ture information systems;                          |
| 21 | "(F) the integration of information from           |
| 22 | Federal Government and non-federal network         |
| 23 | operation centers and security operations cen-     |
| 24 | ters;  |

| 1  | "(G) the compilation and analysis of infor-            |
|----|--|
| 2  | mation about risks and incidents regarding ter-        |
| 3  | rorism or other causes that threaten Federal           |
| 4  | systems and critical infrastructure information        |
| 5  | systems; and   |
| 6  | "(H) the provision of incident prediction,             |
| 7  | detection, analysis, mitigation, and response in-      |
| 8  | formation and remote or on-site technical as-          |
| 9  | sistance to heads of Federal agencies and, upon        |
| 10 | request, governmental and private entities that        |
| 11 | own or operate critical infrastructure;                |
| 12 | "(5) assist in national efforts to mitigate com-       |
| 13 | munications and information technology supply          |
| 14 | chain vulnerabilities to enhance the security and the  |
| 15 | resiliency of Federal systems and critical infrastruc- |
| 16 | ture information systems;                              |
| 17 | "(6) develop and lead a nationwide awareness           |
| 18 | and outreach effort to educate the public about—       |
| 19 | "(A) the importance of cybersecurity and               |
| 20 | cyber ethics;  |
| 21 | "(B) ways to promote cybersecurity best                |
| 22 | practices at home and in the workplace; and            |
| 23 | "(C) training opportunities to support the             |
| 24 | development of an effective national cybersecu-        |

| 1  | rity workforce and educational paths to cyberse-       |
|----|--|
| 2  | curity professions;                                    |
| 3  | "(7) establish, in coordination with the Director      |
| 4  | of the National Institute of Standards and Tech-       |
| 5  | nology, the heads of other appropriate agencies, and   |
| 6  | appropriate elements of the private sector, guidelines |
| 7  | for making critical infrastructure information sys-    |
| 8  | tems and industrial control systems more secure at     |
| 9  | a fundamental level, including through automation,     |
| 10 | interoperability, and privacy-enhancing authentica-    |
| 11 | tion;  |
| 12 | "(8) develop a national cybersecurity incident         |
| 13 | response plan and supporting cyber incident re-        |
| 14 | sponse and restoration plans, in consultation with     |
| 15 | the heads of other relevant Federal agencies, owners   |
| 16 | and operators of critical infrastructure, sector co-   |
| 17 | ordinating councils, State and local governments,      |
| 18 | and relevant non-governmental organizations and        |
| 19 | based on applicable law that describe the specific     |
| 20 | roles and responsibilities of governmental and pri-    |
| 21 | vate entities during cyber incidents to ensure essen-  |
| 22 | tial government operations continue;                   |
| 23 | "(9) develop and conduct exercises, simulations,       |
| 24 | and other activities designed to support the national  |
| 25 | response to terrorism and other cybersecurity          |

| 1  | threats and incidents and evaluate the national       |
|----|---|
| 2  | cyber incident response plan and supporting plans     |
| 3  | developed in accordance with paragraph (8);           |
| 4  | "(10) ensure that the technology and tools used       |
| 5  | to accomplish the requirements of this section are    |
| 6  | scientifically and operationally validated;           |
| 7  | "(11) subject to the availability of resources,       |
| 8  | provide technical assistance, including sending on-   |
| 9  | site teams, to critical infrastructure owners and op- |
| 10 | erators when requested; and                           |
| 11 | "(12) take such other lawful action as may be         |
| 12 | necessary and appropriate to accomplish the require-  |
| 13 | ments of this section.                                |
| 14 | "(b) Coordination.—                                   |
| 15 | "(1) Coordination with other entities.—               |
| 16 | In carrying out the cybersecurity activities under    |
| 17 | this section, the Secretary shall coordinate, as ap-  |
| 18 | propriate, with—                                      |
| 19 | "(A) the head of any relevant agency or               |
| 20 | entity;   |
| 21 | "(B) representatives of State and local               |
| 22 | governments;  |
| 23 | "(C) the private sector, including owners             |
| 24 | and operators of critical infrastructure;             |

| 1  | "(D) suppliers of technology for critical in-           |
|----|---|
| 2  | frastructure;   |
| 3  | "(E) academia; and                                      |
| 4  | "(F) international organizations and for-               |
| 5  | eign partners.  |
| 6  | "(2) Coordination of agency activities.—                |
| 7  | The Secretary shall coordinate the activities under-    |
| 8  | taken by agencies to protect Federal systems and        |
| 9  | critical infrastructure information systems and pre-    |
| 10 | pare the Nation to predict, anticipate, recognize, re-  |
| 11 | spond to, recover from, and mitigate against risk of    |
| 12 | acts of terrorism and other incidents involving such    |
| 13 | systems and infrastructure.                             |
| 14 | "(3) Lead cybersecurity official.—The                   |
| 15 | Secretary shall designate a lead cybersecurity official |
| 16 | to provide leadership to the cybersecurity activities   |
| 17 | of the Department and to ensure that the Depart-        |
| 18 | ment's cybersecurity activities under this subtitle are |
| 19 | coordinated with all other infrastructure protection    |
| 20 | and cyber-related programs and activities of the De-    |
| 21 | partment, including those of any intelligence or law    |
| 22 | enforcement components or entities within the De-       |
| 23 | partment.   |
| 24 | "(4) Reports to congress.—The lead cyber-               |
| 25 | security official shall make annual reports to the ap-  |

| 1  | propriate committees of Congress on the coordina-            |
|----|--|
| 2  | tion of cyber-related programs across the Depart-            |
| 3  | ment.  |
| 4  | "(c) Strategy.—In carrying out the cybersecurity             |
| 5  | functions of the Department, the Secretary shall develop     |
| 6  | and maintain a strategy that—                                |
| 7  | "(1) articulates the actions necessary to assure             |
| 8  | the readiness, reliability, continuity, integrity, and       |
| 9  | resilience of Federal systems and critical infrastruc-       |
| 10 | ture information systems;                                    |
| 11 | "(2) includes explicit goals and objectives as               |
| 12 | well as specific timeframes for achievement of stated        |
| 13 | goals and objectives;  |
| 14 | "(3) is informed by the need to maintain eco-                |
| 15 | nomic prosperity and facilitate market leadership for        |
| 16 | the United States information and communications             |
| 17 | industry; and  |
| 18 | "(4) protects privacy rights and preserves civil             |
| 19 | liberties of United States persons.                          |
| 20 | "(d) No Right or Benefit.—The provision of as-               |
| 21 | sistance or information to governmental or private entities  |
| 22 | that own or operate critical infrastructure information sys- |
| 23 | tems under this section shall be at the discretion of the    |
| 24 | Secretary and subject to the availability of resources. The  |
| 25 | provision of certain assistance or information to one gov-   |

| 1  | ernmental or private entity pursuant to this section shall |
|----|--|
| 2  | not create a right or benefit, substantive or procedural,  |
| 3  | to similar assistance or information for any other govern- |
| 4  | mental or private entity.                                  |
| 5  | "(e) Savings Clause.—Nothing in this subtitle shall        |
| 6  | be interpreted to alter or amend the law enforcement or    |
| 7  | intelligence authorities of any agency.                    |
| 8  | "(f) Definitions.—In this section:                         |
| 9  | "(1) The term 'Federal systems' means all in-              |
| 10 | formation systems owned, operated, leased, or other-       |
| 11 | wise controlled by an agency, or on behalf of an           |
| 12 | agency, except for national security systems or those      |
| 13 | information systems under the control of the De-           |
| 14 | partment of Defense.                                       |
| 15 | "(2) The term 'critical infrastructure informa-            |
| 16 | tion systems' means any physical or virtual informa-       |
| 17 | tion system that controls, processes, transmits, re-       |
| 18 | ceives, or stores electronic information in any form,      |
| 19 | including data, voice, or video, that is—                  |
| 20 | "(A) vital to the functioning of critical in-              |
| 21 | frastructure as defined in section 5195c(e) of             |
| 22 | title 42, United States Code; or                           |
| 23 | "(B) owned or operated by or on behalf of                  |
| 24 | a State or local government entity that is nec-            |

| 1  | essary to ensure essential government oper-  |
|--|--|
| 2  | ations continue.   |
| 3  | "(g) Authorization of Appropriation for the  |
| 4  | NATIONAL CYBERSECURITY AND COMMUNICATIONS INTE-  |
| 5  | GRATION CENTER.—There is authorized to be appro-   |
| 6  | priated for the administration and management of the Na-   |
| 7  | tional Cybersecurity and Communications Integration  |
| 8  | Center established pursuant to subsection (a), \$4,000,000   |
| 9  | for each of fiscal years 2013, 2014, and 2015.   |
| 10   | "SEC. 227. IDENTIFICATION OF SECTOR SPECIFIC CYBER-  |
| 11   | SECURITY RISKS.  |
| 12   | "(a) IN GENERAL.—The Secretary shall, on a contin-   |
| 1 2  | v /  |
| 13   | uous and sector-by-sector basis, identify and evaluate cy-   |
|  |  |
| 13   | uous and sector-by-sector basis, identify and evaluate cy-   |
| 13<br>14   | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in  |
| 13<br>14<br>15                                     | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in<br>annual risk assessments required under the National In-   |
| 13<br>14<br>15<br>16                               | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in<br>annual risk assessments required under the National In-<br>frastructure Protection Plan. In carrying out this sub-  |
| 13<br>14<br>15<br>16                               | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in<br>annual risk assessments required under the National In-<br>frastructure Protection Plan. In carrying out this sub-<br>section, the Secretary shall coordinate, as appropriate,  |
| 113<br>114<br>115<br>116<br>117                    | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in<br>annual risk assessments required under the National In-<br>frastructure Protection Plan. In carrying out this sub-<br>section, the Secretary shall coordinate, as appropriate,<br>with the following:   |
| 13<br>14<br>15<br>16<br>17<br>18                   | uous and sector-by-sector basis, identify and evaluate cy-<br>bersecurity risks to critical infrastructure for inclusion in<br>annual risk assessments required under the National In-<br>frastructure Protection Plan. In carrying out this sub-<br>section, the Secretary shall coordinate, as appropriate,<br>with the following:  "(1) The head of the sector specific agency with   |
| 13<br>14<br>15<br>16<br>17<br>18<br>19<br>20       | uous and sector-by-sector basis, identify and evaluate cy- bersecurity risks to critical infrastructure for inclusion in annual risk assessments required under the National In- frastructure Protection Plan. In carrying out this sub- section, the Secretary shall coordinate, as appropriate, with the following:  "(1) The head of the sector specific agency with responsibility for critical infrastructure.  |
| 13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21 | uous and sector-by-sector basis, identify and evaluate cy- bersecurity risks to critical infrastructure for inclusion in annual risk assessments required under the National In- frastructure Protection Plan. In carrying out this sub- section, the Secretary shall coordinate, as appropriate, with the following:  "(1) The head of the sector specific agency with responsibility for critical infrastructure.  "(2) The head of any agency with responsibil- |

| 1  | ical Infrastructure Partnership Advisory Council en-         |
|----|--|
| 2  | tities.  |
| 3  | "(4) Any private sector entity determined ap-                |
| 4  | propriate by the Secretary.                                  |
| 5  | "(b) Evaluation of Risks.—The Secretary, in co-              |
| 6  | ordination with the individuals and entities referred to in  |
| 7  | subsection (a), shall evaluate the cybersecurity risks iden- |
| 8  | tified under subsection (a) by taking into account each of   |
| 9  | the following:   |
| 10 | "(1) The actual or assessed threat, including a              |
| 11 | consideration of adversary capabilities and intent,          |
| 12 | preparedness, target attractiveness, and deterrence          |
| 13 | capabilities.  |
| 14 | "(2) The extent and likelihood of death, injury,             |
| 15 | or serious adverse effects to human health and safe-         |
| 16 | ty caused by a disruption, destruction, or unauthor-         |
| 17 | ized use of critical infrastructure.                         |
| 18 | "(3) The threat to national security caused by               |
| 19 | the disruption, destruction or unauthorized use of           |
| 20 | critical infrastructure.                                     |
| 21 | "(4) The harm to the economy that would re-                  |
| 22 | sult from the disruption, destruction, or unauthor-          |
| 23 | ized use of critical infrastructure.                         |
| 24 | "(5) Other risk-based security factors that the              |
| 25 | Secretary, in consultation with the head of the sec-         |

| 1  | tor specific agency with responsibility for critical in-      |
|----|---|
| 2  | frastructure and the head of any Federal agency               |
| 3  | that is not a sector specific agency with responsibil-        |
| 4  | ities for regulating critical infrastructure, and in          |
| 5  | consultation with any private sector entity deter-            |
| 6  | mined appropriate by the Secretary to protect public          |
| 7  | health and safety, critical infrastructure, or national       |
| 8  | and economic security.  |
| 9  | "(c) AVAILABILITY OF IDENTIFIED RISKS.—The Sec-               |
| 10 | retary shall ensure that the risks identified and evaluated   |
| 11 | under this section for each sector and subsector are made     |
| 12 | available to the owners and operators of critical infrastruc- |
| 13 | ture within each sector and subsector.                        |
| 14 | "(d) Collection of Risk-based Performance                     |
| 15 | STANDARDS.—   |
| 16 | "(1) REVIEW AND ESTABLISHMENT.—The Sec-                       |
| 17 | retary, in coordination with the National Institute of        |
| 18 | Standards and Technology and the heads of other               |
| 19 | appropriate agencies, shall review existing inter-            |
| 20 | nationally recognized consensus-developed risk-based          |
| 21 | performance standards, including standards devel-             |
| 22 | oped by the National Institute of Standards and               |
| 23 | Technology, for inclusion in a common collection.             |
| 24 | Such collection shall include, for each such risk-            |
| 25 | based performance standard, an analysis, based on             |

| 1  | the typical implementation of each performance           |
|----|--|
| 2  | standard, of each of the following:                      |
| 3  | "(A) How well the performance standard                   |
| 4  | addresses the identified risks.                          |
| 5  | "(B) How cost-effective the standard im-                 |
| 6  | plementation of the performance standard can             |
| 7  | be.  |
| 8  | "(2) USE OF COLLECTION.—The Secretary, in                |
| 9  | conjunction with the heads of other appropriate          |
| 10 | agencies, shall develop market-based incentives de-      |
| 11 | signed to encourage the use of the collection estab-     |
| 12 | lished under paragraph (1).                              |
| 13 | "(3) Inclusion in regulatory regimes.—                   |
| 14 | The heads of sector specific agencies with responsi-     |
| 15 | bility for regulating covered critical infrastructure or |
| 16 | the head of any Federal agency that is not a sector      |
| 17 | specific agency with responsibilities for regulating     |
| 18 | covered critical infrastructure, in consultation with    |
| 19 | the Secretary and with any private sector entity de-     |
| 20 | termined appropriate by the Secretary, shall—            |
| 21 | "(A) review agency regulations regarding                 |
| 22 | critical infrastructure protection to determine          |
| 23 | the efficacy of such regulations in regard to the        |
| 24 | risks identified under subsection (a);                   |

| 1  | "(B) revoke any unnecessary or duplicative              |
|----|---|
| 2  | regulation;   |
| 3  | "(C) identify any gaps in regulation that               |
| 4  | leave any risk to the agency's sector identified        |
| 5  | under subsection (a) unmitigated;                       |
| 6  | "(D) propose through a notice and com-                  |
| 7  | ment rulemaking to include only the most effec-         |
| 8  | tive and cost beneficial standards collected            |
| 9  | under paragraph (1) to mitigate unmitigated             |
| 10 | risks; and  |
| 11 | "(E) communicate to covered critical infra-             |
| 12 | structure the results and basis of the review of        |
| 13 | regulatory requirements.                                |
| 14 | "(e) MITIGATION OF RISKS.—If the Secretary deter-       |
| 15 | mines that no existing internationally-recognized risk- |
| 16 | based performance standard mitigates a risk identified  |
| 17 | under subsection (a), the Secretary shall—              |
| 18 | "(1) collaborate with owners and operators of           |
| 19 | critical infrastructure and suppliers of technology to  |
| 20 | develop mitigation strategies for the identified risk,  |
| 21 | including determining appropriate market-based in-      |
| 22 | centives for the implementation of the identified       |
| 23 | mitigation; and   |
| 24 | "(2) engage with the National Institute of              |
| 25 | Standards and Technology and appropriate inter-         |

| 1  | national consensus bodies that develop and strength-       |
|----|--|
| 2  | en standards and practices to address the identified       |
| 3  | risk.  |
| 4  | "(f) Covered Critical Infrastructure De-                   |
| 5  | FINED.—In this section, the term 'covered critical infra-  |
| 6  | structure' means any facility or function of a company or  |
| 7  | government agency that, by way of cyber vulnerability, the |
| 8  | destruction or disruption of or unauthorized access to     |
| 9  | could result in—   |
| 10 | "(1) a significant loss of life;                           |
| 11 | "(2) a major economic disruption, including—               |
| 12 | "(A) the immediate failure of, or loss of                  |
| 13 | confidence in, a major financial market; or                |
| 14 | "(B) the sustained disruption of financial                 |
| 15 | systems that would lead to long term cata-                 |
| 16 | strophic economic damage to the United States              |
| 17 | "(3) mass evacuations of a major population                |
| 18 | center for an extended length of time; or                  |
| 19 | "(4) severe degradation of national security or            |
| 20 | national security capabilities, including intelligence     |
| 21 | and defense functions, but excluding military facili-      |
| 22 | ties.  |
| 23 | "(g) Written Notification.—The Secretary shall             |
| 24 | provide written notification to the owners or operators of |

| 1  | a facility or function that has been designated a covered   |
|----|---|
| 2  | critical infrastructure within 30 days of such designation. |
| 3  | "(h) Redress.—  |
| 4  | "(1) In general.—Subject to paragraphs (2)                  |
| 5  | and (3), the Secretary shall develop a mechanism,           |
| 6  | consistent with subchapter II of chapter 5 of title 5,      |
| 7  | United States Code, for an owner or operator noti-          |
| 8  | fied under subsection (f) to appeal the identification      |
| 9  | of a facility or function as covered critical infrastruc-   |
| 10 | ture under this section.                                    |
| 11 | "(2) Appeal to federal court.—A civil ac-                   |
| 12 | tion seeking judicial review of a final agency action       |
| 13 | taken under the mechanism developed under para-             |
| 14 | graph (1) shall be filed in the United States District      |
| 15 | Court for the District of Columbia.                         |
| 16 | "(3) COMPLIANCE.—The owner or operator of a                 |
| 17 | facility or function identified as covered critical in-     |
| 18 | frastructure shall comply with any requirement of           |
| 19 | this subtitle relating to covered critical infrastruc-      |
| 20 | ture until such time as the facility or function is no      |
| 21 | longer identified as covered critical infrastructure,       |
| 22 | based on—   |
| 23 | "(A) an appeal under paragraph (1);                         |
| 24 | "(B) a determination of the Secretary un-                   |
| 25 | related to an appeal; or                                    |

| 1  | "(C) a final judgment entered in a civil ac-                  |
|----|---|
| 2  | tion seeking judicial review brought in accord-               |
| 3  | ance with paragraph (2).                                      |
| 4  | "(i) Limitation of Regulatory Authority.—                     |
| 5  | Nothing in this section expands the regulatory authority      |
| 6  | of sector specific agencies or other agencies with regu-      |
| 7  | latory authority over elements of covered critical infra-     |
| 8  | structure beyond the risk-based performance standards         |
| 9  | collected under subsection (d).                               |
| 10 | "SEC. 228. INFORMATION SHARING.                               |
| 11 | "(a) Cybersecurity Information.—The Secretary                 |
| 12 | shall be responsible for making all cyber threat informa-     |
| 13 | tion, provided pursuant to section 202 of this title, avail-  |
| 14 | able to appropriate owners and operators of critical infra-   |
| 15 | structure on a timely basis consistent with the responsibil-  |
| 16 | ities of the Secretary to provide information related to      |
| 17 | threats to critical infrastructure.                           |
| 18 | "(b) Information Sharing.—The Secretary shall,                |
| 19 | in a timely manner and to the maximum extent possible,        |
| 20 | consistent with rules for the handling of classified and sen- |
| 21 | sitive but unclassified information, share relevant informa-  |
| 22 | tion regarding cybersecurity threats and vulnerabilities,     |
| 23 | and any proposed actions to mitigate them, with all Fed-      |
| 24 | eral agencies, appropriate State or local government rep-     |
| 25 | resentatives, appropriate critical infrastructure informa-    |

- 1 tion systems owners and operators, Information Sharing
- 2 and Analysis Centers, appropriate academic and private
- 3 sector entitles that conduct cybersecurity or information
- 4 security research and development, and appropriate pri-
- 5 vate sector entities that provide cybersecurity or informa-
- 6 tion security products or services, including by expediting
- 7 necessary security clearances for designated points of con-
- 8 tact for all appropriate entities.
- 9 "(c) Protection of Information.—The Secretary
- 10 shall designate, as appropriate, information received from
- 11 Federal agencies and from critical infrastructure informa-
- 12 tion systems owners and operators and information pro-
- 13 vided to Federal agencies or critical infrastructure infor-
- 14 mation systems owners and operators pursuant to this sec-
- 15 tion as sensitive security information and shall require and
- 16 enforce sensitive security information requirements for
- 17 handling, storage, and dissemination of any such informa-
- 18 tion, including proper protections for personally identifi-
- 19 able information and stripping data of unnecessary identi-
- 20 fying information.
- 21 "SEC. 229. CYBERSECURITY RESEARCH AND DEVELOP-
- 22 MENT.
- "(a) IN GENERAL.—The Under Secretary for Science
- 24 and Technology shall support research, development, test-
- 25 ing, evaluation, and transition of cybersecurity technology

| 1  | in coordination with a national cybersecurity research and |
|----|--|
| 2  | development plan. Such support shall include funda-        |
| 3  | mental, long-term research to improve the ability of the   |
| 4  | United States to prevent, protect against, detect, respond |
| 5  | to, and recover from acts of terrorism and cyber attacks,  |
| 6  | with an emphasis on research and development relevant      |
| 7  | to attacks that would cause a debilitating impact on na-   |
| 8  | tional security, national economic security, or national   |
| 9  | public health and safety.                                  |
| 10 | "(b) ACTIVITIES.—The research and development              |
| 11 | testing, evaluation, and transition supported under sub-   |
| 12 | section (a) shall include work to—                         |
| 13 | "(1) advance the development and accelerate                |
| 14 | the deployment of more secure versions of funda-           |
| 15 | mental Internet protocols and architectures, includ-       |
| 16 | ing for the domain name system and routing proto-          |
| 17 | cols;  |
| 18 | "(2) improve, create, and advance the research             |
| 19 | and development of techniques and technologies for         |
| 20 | proactive detection and identification of threats, at-     |
| 21 | tacks, and acts of terrorism before they occur;            |
| 22 | "(3) advance technologies for detecting attacks            |
| 23 | or intrusions, including real-time monitoring and          |
| 24 | real-time analytic technologies;                           |

| 1  | "(4) improve and create mitigation and recov-          |
|----|--|
| 2  | ery methodologies, including techniques and policies   |
| 3  | for real-time containment of attacks and develop-      |
| 4  | ment of resilient networks and systems;                |
| 5  | "(5) develop and support infrastructure and            |
| 6  | tools to support cybersecurity research and develop-   |
| 7  | ment efforts, including modeling, test beds, and data  |
| 8  | sets for assessment of new cybersecurity tech-         |
| 9  | nologies;  |
| 10 | "(6) assist in the development and support of          |
| 11 | technologies to reduce vulnerabilities in process con- |
| 12 | trol systems;  |
| 13 | "(7) develop and support cyber forensics and           |
| 14 | attack attribution;                                    |
| 15 | "(8) test, evaluate, and facilitate the transfer of    |
| 16 | technologies associated with the engineering of less   |
| 17 | vulnerable software and securing the information       |
| 18 | technology software development lifecycle;             |
| 19 | "(9) ensure new cybersecurity technologies are         |
| 20 | scientifically and operationally validated; and        |
| 21 | "(10) facilitate the planning, development, and        |
| 22 | implementation of international cooperative activities |
| 23 | (as defined in section 317) to address cybersecurity   |
| 24 | and energy infrastructure with foreign public or pri-  |
| 25 | vate entities, governmental organizations, businesses  |

| 1  | (including small business concerns and social and      |
|----|--|
| 2  | economically disadvantaged small business concerns     |
| 3  | (as those terms are defined in sections 3 and 8 of     |
| 4  | the Small Business Act (15 U.S.C. 632 and 637) re-     |
| 5  | spectively)), federally funded research and develop-   |
| 6  | ment centers and universities from countries that      |
| 7  | may include Israel, the United Kingdom, Canada,        |
| 8  | Australia, Singapore, Germany, New Zealand, and        |
| 9  | other allies, as determined by the Secretary, in re-   |
| 10 | search and development of technologies, best prac-     |
| 11 | tices, and other means to protect critical infrastruc- |
| 12 | ture, including the national electric grid.            |
| 13 | "(c) Coordination.—In carrying out this section,       |
| 14 | the Under Secretary shall coordinate activities with—  |
| 15 | "(1) the Under Secretary for National Protec-          |
| 16 | tion and Programs Directorate; and                     |
| 17 | "(2) the heads of other relevant Federal depart-       |
| 18 | ments and agencies, including the National Science     |
| 19 | Foundation, the Defense Advanced Research              |
| 20 | Projects Agency, the Information Assurance Direc-      |
| 21 | torate of the National Security Agency, the National   |
| 22 | Institute of Standards and Technology, the Depart-     |
| 23 | ment of Commerce, academic institutions, the Net-      |
| 24 | working and Information Technology Research and        |
| 25 | Development Program, and other appropriate work-       |

| 1  | ing groups established by the President to identify        |
|----|--|
| 2  | unmet needs and cooperatively support activities, as       |
| 3  | appropriate.   |
| 4  | "SEC. 230. PERSONNEL AUTHORITIES RELATED TO THE OF-        |
| 5  | FICE OF CYBERSECURITY AND COMMUNICA-                       |
| 6  | TIONS.   |
| 7  | "(a) In General.—In order to assure that the De-           |
| 8  | partment has the necessary resources to carry out the mis- |
| 9  | sion of securing Federal systems and critical infrastruc-  |
| 10 | ture information systems, the Secretary may, as nec-       |
| 11 | essary, convert competitive service positions, and the in- |
| 12 | cumbents of such positions, within the Office of Cyberse-  |
| 13 | curity and Communications to excepted service, or may      |
| 14 | establish new positions within the Office of Cybersecurity |
| 15 | and Communications in the excepted service, to the extent  |
| 16 | that the Secretary determines such positions are necessary |
| 17 | to carry out the cybersecurity functions of the Depart-    |
| 18 | ment.  |
| 19 | "(b) Compensation.—The Secretary may—                      |
| 20 | "(1) fix the compensation of individuals who               |
| 21 | serve in positions referred to in subsection (a) in re-    |
| 22 | lation to the rates of pay provided for comparable         |
| 23 | positions in the Department and subject to the same        |
| 24 | limitations on maximum rates of pay established for        |

| 1  | employees of the Department by law or regulations;         |
|----|--|
| 2  | and  |
| 3  | "(2) provide additional forms of compensation,             |
| 4  | including benefits, incentives, and allowances, that       |
| 5  | are consistent with and not in excess of the level au-     |
| 6  | thorized for comparable positions authorized under         |
| 7  | title 5, United States Code.                               |
| 8  | "(c) Retention Bonuses.—Notwithstanding any                |
| 9  | other provision of law, the Secretary may pay a retention  |
| 10 | bonus to any employee appointed under this section, if the |
| 11 | Secretary determines that the bonus is needed to retain    |
| 12 | essential personnel. Before announcing the payment of a    |
| 13 | bonus under this subsection, the Secretary shall submit    |
| 14 | a written explanation of such determination to the Com-    |
| 15 | mittee on Homeland Security of the House of Representa-    |
| 16 | tives and the Committee on Homeland Security and Gov-      |
| 17 | ernmental Affairs of the Senate.                           |
| 18 | "(d) Annual Report.—Not later than one year                |
| 19 | after the date of the enactment of this section, and annu- |
| 20 | ally thereafter, the Secretary shall submit to the Com-    |
| 21 | mittee on Homeland Security of the House of Representa-    |
| 22 | tives and the Committee on Homeland Security and Gov-      |
| 23 | ernment Affairs of the Senate a detailed report that in-   |
| 24 | cludes, for the period covered by the report—              |

| 1  | "(1) a discussion the Secretary's use of the              |
|----|---|
| 2  | flexible authority authorized under this section to re-   |
| 3  | cruit and retain qualified employees;                     |
| 4  | "(2) metrics on relevant personnel actions, in-           |
| 5  | cluding—  |
| 6  | "(A) the number of qualified employees                    |
| 7  | hired by occupation and grade, level, or pay              |
| 8  | band;   |
| 9  | "(B) the total number of veterans hired;                  |
| 10 | "(C) the number of separations of qualified               |
| 11 | employees;  |
| 12 | "(D) the number of retirements of quali-                  |
| 13 | fied employees; and                                       |
| 14 | "(E) the number and amounts of recruit-                   |
| 15 | ment, relocation, and retention incentives paid           |
| 16 | to qualified employees by occupation and grade,           |
| 17 | level, or pay band; and                                   |
| 18 | "(3) long-term and short-term strategic goals to          |
| 19 | address critical skills deficiencies, including an anal-  |
| 20 | ysis of the numbers of and reasons for attrition of       |
| 21 | employees and barriers to recruiting and hiring indi-     |
| 22 | viduals qualified in cybersecurity.".                     |
| 23 | (b) CLERICAL AMENDMENT.—The table of contents             |
| 24 | in section 2(b) of such Act is amended by inserting after |
| 25 | the item relating to section 225 the following new items: |
|    | "Sec 226 National cybersecurity authority                 |

- "Sec. 227. Identification of sector specific cybersecurity risks.
- "Sec. 228. Information sharing.
- "Sec. 229. Cybersecurity research and development.
- "Sec. 230. Personnel authorities related to the Office of Cybersecurity and Communications.".
- 1 (c) Plan for Execution of Authorities.—Not
- 2 later than 120 days after the date of the enactment of
- 3 this title, the Secretary of Homeland Security shall submit
- 4 to the Committee on Homeland Security of the House of
- 5 Representatives and the Committee on Homeland Security
- 6 and Governmental Affairs of the Senate a report con-
- 7 taining a plan for the execution of the authorities con-
- 8 tained in the amendment made by subsection (a).
- 9 SEC. 203. REPORT ON SUPPORT FOR REGIONAL CYBERSE-
- 10 CURITY COOPERATIVES.
- Not later than 180 days after the date of the enact-
- 12 ment of this title, the Secretary of Homeland Security
- 13 shall submit to the Committee on Homeland Security of
- 14 the House of Representatives and the Committee on
- 15 Homeland Security and Governmental Affairs of the Sen-
- 16 ate a report on the Secretary's plan to provide support
- 17 to regional, State, and local grassroots cyber cooperatives
- 18 designed to decrease cyber disruptions to critical infra-
- 19 structure, increase cyber workforce training efforts, in-
- 20 crease community awareness of cybersecurity, organize
- 21 community cyber-emergency preparedness efforts, build
- 22 resiliency of regional, State, and local critical services, and

1 coordinate academic technical and policy research effort. 2 The report shall include each of the following: 3 (1) A plan for introducing a grant process for pilot regional, State, and local cyber cooperatives 4 5 that would be implemented within 90 days of the 6 submission of the report to Congress. 7 (2) Recommendations for integrating regional, 8 State, and local grassroots cyber cooperatives in re-9 gional, State, and Federal cyber disruption plans. 10 (3) A plan for increasing cyber threat informa-11 tion sharing between regional, State, and local cyber 12 cooperatives, the Federal Emergency Management 13 Agency, the Department of Homeland Security, and 14 the National Information Sharing Organization. 15 (4) A plan to promote with the National Infor-16 mation Sharing Organization a ground up, commu-17 nity-based network of cyber cooperatives. 18 (5) A plan for establishing a Federal online 19 portal for existing groups to coordinate online train-20 ing, best practices, and other cybersecurity integra-21 tion efforts. 22 (6) A plan for utilizing Federal cyber assets in 23 support of disaster response efforts, as well as sup-24 port to regional, State, and local cyber cooperatives.

| 1  | SEC. 204. PILOT PROGRAM ON CYBERSECURITY TRAINING            |
|----|--|
| 2  | FOR FUSION CENTERS.  |
| 3  | (a) Plan.—The Secretary of Homeland Security                 |
| 4  | shall develop a plan to implement a one-year voluntary       |
| 5  | pilot program to test and assess the feasibility, costs, and |
| 6  | benefits of providing cybersecurity training to State and    |
| 7  | local law enforcement personnel through the national net-    |
| 8  | work of fusion centers.                                      |
| 9  | (b) Pilot Program.—  |
| 10 | (1) IN GENERAL.—Not later than one year                      |
| 11 | after the date of the enactment of the title, the Sec-       |
| 12 | retary shall implement a one-year voluntary pilot            |
| 13 | program to train State and local law enforcement             |
| 14 | personnel in the national network of fusion centers          |
| 15 | in cyber security standards, procedures, and best            |
| 16 | practices.   |
| 17 | (2) Curriculum and Personnel.—In cre-                        |
| 18 | ating the curriculum for the training program and            |
| 19 | conducting the program, the Secretary may assign             |
| 20 | personnel from the Department of Homeland Secu-              |
| 21 | rity, including personnel from the Office of Cyberse-        |
| 22 | curity and Communications.                                   |
| 23 | SEC. 205. ASSESSMENT OF SECTOR BY SECTOR CYBERSE-            |
| 24 | CURITY PREPAREDNESS.   |
| 25 | (a) Assessment Required.—The Secretary of                    |
| 26 | Homeland Security, in conjunction with the owners and        |

| 1  | operators of critical infrastructure through the Critical In- |
|----|---|
| 2  | frastructure Partnership Advisory Council, and in con-        |
| 3  | sultation with the sector specific agencies and agencies      |
| 4  | with regulatory authority over critical infrastructure, and   |
| 5  | other appropriate organizations shall conduct an assess-      |
| 6  | ment of the cybersecurity preparedness of each sector of      |
| 7  | the critical infrastructure as described in the National In-  |
| 8  | frastructure Protection Plan. Not later than 180 days         |
| 9  | after the date of the enactment of this title, the Secretary  |
| 10 | shall submit to the appropriate congressional committees      |
| 11 | the results and recommendations of that assessment in an      |
| 12 | unclassified report, with a classified annex if appropriate.  |
| 13 | (b) Contents of Report.— The report required by               |
| 14 | subsection (a) shall include an assessment of the current     |
| 15 | state of the cybersecurity preparedness of each sector, in-   |
| 16 | cluding an evaluation of—                                     |
| 17 | (1) the current state of cybersecurity situational            |
| 18 | awareness for each sector, an articulation of what an         |
| 19 | adequate level of cybersecurity situational awareness         |
| 20 | should be for the sector, and recommendations for             |
| 21 | how and over what time frame the gap should be                |
| 22 | closed between current and desired end-state;                 |
| 23 | (2) the current state of cybersecurity analytic               |
| 24 | capability for each sector, an articulation of what an        |
| 25 | adequate level of cybersecurity analytic capability           |

| 1  | should be for the sector, and recommendations for            |
|----|--|
| 2  | how and over what time frame the gap should be               |
| 3  | closed between current and desired end-state;                |
| 4  | (3) the current state of cybersecurity response              |
| 5  | capability for each sector, an articulation of what an       |
| 6  | adequate level of cybersecurity response capability          |
| 7  | should be for the sector, and recommendations for            |
| 8  | how and over what time frame the gap should be               |
| 9  | closed between current and desired end-state; and            |
| 10 | (4) the current state of cybersecurity recovery              |
| 11 | planning and capability for each sector, an articula-        |
| 12 | tion of what an adequate level of recovery planning          |
| 13 | and capability should be for the sector, and rec-            |
| 14 | ommendations for how and over what time frame the            |
| 15 | gap should be closed between current and desired             |
| 16 | end-state.   |
| 17 | (c) Cybersecurity Risk.—To the extent necessary              |
| 18 | to inform the quality and specificity of the evaluation and  |
| 19 | recommendations regarding cybersecurity preparedness         |
| 20 | for each sector, consideration should be given to the cyber- |
| 21 | security identified under section 227 of the Homeland Se-    |
| 22 | curity Act of 2002, as added by this title.                  |

| 1 | SEC. 206. REPORT ON FOREIGN ENTITIES POSING CYBER-          |
|---|---|
| 2 | SECURITY THREATS TO CRITICAL INFRA-                         |
| 3 | STRUCTURE.  |
| 4 | The Secretary of Homeland Security shall submit to          |
| 5 | the Committee on Homeland Security of the House of          |
| 5 | Representatives a report on the foreign entities, including |
| 7 | foreign terrorist organizations, that the Secretary deter-  |
| 8 | mines pose the greatest cybersecurity threats to the crit-  |
| 9 | ical infrastructure of the United States.                   |
|   |   |

