

U.S. Department of Homeland Security



Transportation  
Security  
Administration

## **DESIGNATION OF SENSITIVE SECURITY INFORMATION**

### **I. Summary**

By this order, the Transportation Security Administration (TSA) is designating pipeline maps and geographic information systems that meet the criteria of part VI of this designation as Sensitive Security Information (SSI). Information designated as SSI requires protection against improper disclosure and is subject to all requirements and restrictions regarding access, control, transmission, dissemination, release, and destruction mandated by federal regulation at 49 C.F.R. Part 1520.

### **II. Legal Authority**

In furtherance of its congressional mandate to “prescribe regulations prohibiting the disclosure of information obtained or developed in carrying out security under authority of [the Aviation and Transportation Security Act] or under chapter 449 of this title if the [Administrator] decides that disclosing the information would—be detrimental to the security of transportation,” see 49 U.S.C. §114(s), TSA has promulgated regulations regarding the designation, maintenance, and disclosure of SSI. See 49 C.F.R. Part 1520.

Pursuant to these regulations, SSI includes “information obtained or developed in the conduct of security activities . . . which TSA has determined would—be detrimental to the security of transportation.” See 49 C.F.R. § 1520.5(a)(3). TSA has established a non-exhaustive list of information that constitutes SSI. See 49 C.F.R. § 1520.5(b). Under section 1520.5(b)(16), TSA may determine that information not otherwise described in section 1520.5(b) is SSI, if its disclosure would be detrimental to the security of transportation.

### **III. The Threat to the U.S. Pipeline System**

The U.S. pipeline system consists of more than 2.3 million miles of oil and gas transmission and distribution pipelines, which are integral to the Nation’s energy supply and provide vital links to critical infrastructure, such as power plants, airports, and military bases. These pipelines transport most of the natural gas and crude and refined oil products used in the United States, including hazardous liquids such as jet fuels, gasoline, and heating oil. These hazardous liquids have the potential to cause serious public and environmental harm if spilled. The pipeline system is difficult to protect, as it is widespread, running through both remote and densely populated regions.

**ATTACHMENT A**

Current intelligence indicates that the terrorist threat against civil transportation targets—including pipelines—continues to be a grave and ongoing concern. Reports indicate that al-Qa`ida and other terrorist operatives continue to develop plans for catastrophic attacks against targets in the United States and actively seek to discover security vulnerabilities they can exploit.

The targeting of pipelines and energy infrastructure would be consistent with al-Qa`ida's stated objective to disrupt and undermine the U.S. economy. Reporting over the past 3 years indicates that al-Qa`ida operatives have discussed pre-operational screening and acts of terrorism involving infrastructure to include pipelines, fuel storage locations, gas stations, and fuel trucks. Al-Qa`ida's record indicates that they are more than capable of using explosives and other weapons to damage and destroy vulnerable portions of a pipeline. Domestic terrorist groups also pose a threat to pipelines.

This intelligence is supported by attacks made by al-Qa`ida and others on pipelines outside the United States in recent years; by arrests made in April 2006 of three individuals possessing casing videos of a fuel tank farm located in Newington, VA, and images and instructions for making car bombs and suicide bombing vests. It is also supported by arrests made in June 2007 of four individuals charged with conspiring to use explosives to attack fuel tanks and their associated pipelines at the John F. Kennedy International Airport in New York City.

#### **IV. Geographic Information Systems Data Layers for Pipelines**

Electronic mapping systems, or geographic information systems (GIS), composed of data layers, commonly are used to keep track of the many components of the U.S. pipeline system. GIS data layers are electronic files that consist of a visible representation of an object (such as a pipeline). The object's location is expressed in terms of coordinates (such as latitude and longitude). The most common GIS data layer format is a shapefile, a proprietary data format developed by Environmental Systems Research Institute (ESRI). Each shapefile or data layer also consists of an underlying database containing attributes that describe an element of the pipeline system (e.g., pipeline diameter, commodity carried by the pipeline, pipeline operator). A GIS map typically is composed of numerous shapefiles or other data layers.

The U.S. Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) National Pipeline Mapping System (NPMS) contains shapefiles that show hazardous liquid and gas transmission pipeline locations and certain attributes. This Order does not apply to shapefiles currently available through the NPMS publicly available web application, or to textual descriptions of the attributes contained therein, as they do not meet the criteria of part VI of this Designation. Likewise, this Order does not apply to data contained in Miss Utility and similar databases that are used by builders and others to avoid damaging pipelines when excavating for construction.

Some State Government agencies and private companies collect and maintain more complex data layers (whether in shapefile or other format). These more complex pipeline data layers are the subject of this Order.

**V. Protection of SSI**

Once information is designated as SSI, only “covered persons” who have a “need to know” are permitted access, see 49 C.F.R. Part 1520. Persons have a “need to know” specific SSI, for example, when the person requires access to the information to carry out transportation security activities approved, accepted, funded, recommended, or directed by the U.S. Department of Homeland Security (DHS) or DOT. See 49 C.F.R. § 1520.11(a)(1). Given the nature of the threat against pipelines in the United States, TSA considers the secure and safe operation of these pipeline systems to be a transportation security activity and priority. Thus, any person who has an operational need to know the SSI designated below has a need to know the information for purposes of 49 C.F.R. Part 1520.

Access to SSI creates specific obligations, and all covered persons have a duty to protect SSI from unauthorized disclosure; provide access only to other covered persons who have a specific need to know; and mark, dispose of, and report all unauthorized disclosure of SSI, as specified in 49 C.F.R. Part 1520. The violation of any protective provisions provided by this regulation may result in administrative or civil penalties.

Pipeline operators and other stakeholders already are covered persons if they have previously created or received information designated SSI under 49 C.F.R. §§ 1520.5(b)(5) or (b)(7). Section 1520.5(b)(5) protects “any vulnerability assessment directed, created, held, funded, or approved by the DOT, DHS, or that will be provided to DOT or DHS in support of a Federal security program.” Section 1520.5(b)(7) protects “any information held by the Federal government concerning threats against transportation or transportation systems and sources and methods used to gather or develop threat information, including threats against cyber infrastructure.” When this information is shared with pipeline operators and other stakeholders, the recipients of the information become covered persons under 49 C.F.R. § 1520.7.

**VI. Final Determination**

(a) Scale determines the level of detail shown on a map, and even simple maps of pipeline systems that are very detailed can provide critical information to terrorists. PHMSA has set the scale of NPMS maps in its publicly available web application at 1:24,000. Any public need for a map of greater detail is outweighed by the risk that terrorists could misuse the information. Accordingly, I hereby make the determination, pursuant to 49 C.F.R. § 1520.5(b)(16), that a map, in any medium, of a pipeline system or portion thereof that shows greater detail than 1:24,000, regardless of the attributes shown, constitutes SSI.

(b) Additionally, complex electronic data layers amass many details of the U.S. pipeline system in one readily accessible medium, thereby presenting a completed mosaic to terrorists that can be analyzed and synthesized to reveal existing security measures and vulnerabilities. In particular, TSA is concerned with complex data layers that contain the following attributes that would be especially useful to an attacker planning an assault on a pipeline: the locations of valves, pump stations, compressor stations, and Supervisory Control and Data Acquisition (SCADA) control centers; operating pressures; throughput; and wall thickness. Valves, pump

stations, and compressor stations are large pieces of equipment or facilities that are difficult and expensive to replace, and pipeline systems are controlled remotely by SCADA control centers. Damage or destruction of any of these components could result in a pipeline being shut down for an extended period of time, making them likely terrorist targets. Both operating pressures and throughput quantities are indicators of how important a pipeline is to the Nation's energy supplies, and an attacker would want to focus his efforts where he could cause the greatest disruption to energy supplies. Finally, wall thickness correlates with a buried pipe's ability to withstand damage from external forces, such as explosions, which would be valuable information in the hands of a terrorist.

In light of the current heightened threat environment, the above pipeline vulnerabilities mapping information is especially vulnerable, and the public release of such complex data layers would be detrimental to transportation security. Accordingly, I make the determination that an electronic mapping system (or correlating data points) of any scale that contains at least four attributes, at least one of which is on the following list, constitutes SSI.<sup>1</sup>

- (1) Valve location
- (2) Pump station location
- (3) Compressor station location
- (4) Supervisory Control and Data Acquisition (SCADA) control center location
- (5) Operating pressure
- (6) Throughput
- (7) Wall thickness

(c) Public disclosure of these detailed maps and pipeline data layers would be detrimental to the security of transportation. In making this final determination, I have provided careful consideration to the burdens of handling information designated as SSI, and I conclude that the transportation security concerns arising from public disclosure of the designated information outweigh any such handling burdens.

#### **VII. Effective Date**

This Order is effective 30 calendar days from the date of this Order.

#### **VIII. Request for Comments**

In preparing this Order, TSA consulted with the pipeline industry, including the Pipeline Sector Coordinating Council, a DHS-sanctioned advisory body composed of representatives from each segment of the pipeline industry (gas transmission, gas distribution, and liquid pipelines), with the major pipeline industry trade associations, and with PHMSA.

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<sup>1</sup> The following are examples of other possible attributes: operator ID, operator name, operator contact information, system name, subsystem name, commodity transported, interstate/intrastate designation, status (e.g., whether in service, abandoned, or retired), data accuracy, and diameter.

TSA invites interested persons to submit written comments, data, or views, which the Agency will consider in making any necessary changes or amendments to this Order. Comments should be submitted, no later than 30 calendar days from the date of this Order, to Andrew Colsky, Director, SSI Office, TSA-31, Transportation Security Administration, 601 South 12th Street, Arlington, VA 22202-4220; facsimile (571) 227-2945; e-mail SSI@dhs.gov.

**IX. Final Order**

This Order is issued under 49 U.S.C. § 114(s) and is final. Pursuant to 49 U.S.C. § 46110, any person disclosing a substantial interest in this Order may, within 60 days of its issuance, apply for review by filing a petition for review in an appropriate U.S. Court of Appeals.

11/12/08  
Date

  
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Kip Hawley  
Assistant Secretary