

“What Is Critical Infrastructure?” and “Why Do I Need To Know What Is In My Area?”

Critical Infrastructure as defined by the Department of Homeland Security is defined in Presidential Executive Order 13228. Most DHS grants are predicated on the basis of risk and “risk” is directly tied to what “critical infrastructure” is within your area of responsibility. In order to obtain funding from these federal DHS programs it is essential that you always list what “critical infrastructure” is in your areas and that you have responsibility for.

Executive Order 13228. *Following the terror attacks of September 11, 2001, President Bush signed new Executive Orders relating to critical infrastructure protection. Executive Order 13228,¹⁵ signed October 8, 2001, established the Office of Homeland Security and the Homeland Security Council. Among the duties assigned the Office was to coordinate efforts to protect:*

- *energy production, transmission/ distribution services and critical facilities*
- *other utilities*
- *telecommunications*
- *facilities that produce, use, store, or dispose of nuclear material*
- *public and privately owned information systems*
- *special events of national significance*
- *transportation, including railways, highways, shipping ports and waterways*
- *airports and civilian aircraft*
- *livestock, agriculture, and systems for the provision of water and food for human use and consumption.¹⁶*

When you are writing your narrative statements and under “project description” it is important to list these “critical infrastructure” concerns and to do so quite clearly. Your “need” for funding, is clearly tied to your actual risk and responsibilities to these assets and this is one of the ways that you will demonstrate that need.

To give you a better understanding of what they are referring to, in the list above, we have described some of the things that you should be looking for in your area of responsibility. When you are assessing what “critical infrastructure” you have in your area, and when compiling that list, you should list things by what is in your primary area and then what is in your mutual aid areas as well. Keep the lists separated and then write three paragraphs, in this order, describing what is in your ; primary response area, then what is in your secondary response or mutual aid areas and finally what is ***not*** technically critical infrastructure but, that presents a particular hazard or exposure to you and your department.

Let's examine each of the above bullet points and give you a little more insight as to what they are talking about as it relates to what may be in your area. When you see these things you may have to call the appropriate people to ask additional questions to more clearly define exactly what the asset is. Let these people know, right up front, that you are applying for a Federal DHS grant and that you are required to list these things in your application. Sometimes you may be required to appear in person to find out, so that they are certain of who is making the request for information. Sometimes information about a particular item may be available on the Internet if you do a "Google search" you may quickly locate the information that you need about that particular asset. If they will not tell you what the capacities are etc. you should tell the reviewer that the information was sought but, they refused to release the data to you for security reasons. The important thing is to let the reviewer know that you tried to get the data.

Energy production, transmission, and distribution services and critical facilities – (these items should be part of a regional power grid and carry large amounts or produce large amounts of power so it is important that you indicate how much they handle or produce daily in megawatts)

- Major power generation facilities that exceed 2,000 MW and support the regional electric grid.
- Electric substations 500 KV or larger, and substations 345 KV or larger, that are part of a critical system supporting populations in excess of one million.
- High-voltage electrical transmission lines 345KV or larger
- Hydroelectric facilities and dams that produce power in excess of 2,000 MW or could cause catastrophic loss of life if breached.
- Pipelines
 - Should be listed if pumping 1million gallons per day for liquid products like petroleum products (gasoline, diesel, crude oil, JP-4, Av-Gas etc).
 - Should be listed if pumping 1 billion cubic feet per day capacity for natural gas, chemical gases, propane, LP
- Refineries
 - What and how much do they store and or produce daily
 - This can also include propane tank farms or anyplace where there is a large quantity stored
- Gas or oil well drilling areas w/ daily production or pumping capacities

Other utilities

- Public drinking water systems that serve more than 100K populations
 - These can include a river or reservoirs that serve multiple cities downstream from you that if you combine those areas populations, they would add up to more than 100K populations.
 - Aqueducts, canals, pipelines etc. that serve major areas for drinking water
 - This does not include aquifers or deep wells. They are only concerned with areas where it is conceivable that someone could put biological agents or chemical poisons into them.
 - Desalinization plants

- Large water treatment plants or sewage treatment plants that serve large populations of more than 100k

Telecommunications

- Large public safety radio transmission towers
- Public TV or radio station antennae systems that are part of the Emergency Broadcasting System
- Microwave radio communication towers
- Large fiber optic cables linking large regional areas or major metropolitan areas that if cut or severed would seriously disrupt either the economic or public safety network.
- Telephone switching centers of large capacity or Internet Service Providers (ISPs) linked to large regional or major metropolitan areas (we are talking Verizon, AOL, Earthlink, Road Runner etc.)

Facilities that produce, use, store, or dispose of nuclear material

- Nuclear power plants within 50- 75 miles of you
 - List them even if they are not currently in production or they are under construction
- Nuclear or designated Haz-Mat waste dumps
 - This may include caves or underground facilities
- Irradiation plants
 - food irradiation facilities
 - medical industries that produce “cancer irradiation products” or use irradiation to sterilize medical instruments
- Nuclear fuel rod production facilities
 - United States Uranium Enrichment Company facilities
 - DOD contractors who fuel nuclear rods or dispose of them for the US military
 - Spent uranium ammunition manufacturers
- Military bases where nuclear war materials are stored or where nuclear powered ships are docked
 - It never hurts to mention ANY military bases that are close to you or in your primary response areas, as these are always high-risk potential terrorist targets especially if they have nuclear, chemical or biological WMD on site.

Public and privately owned information systems

- Large financial data centers for major bank headquarters or the headquarters for Fortune 500 companies
 - Think Wal-Mart, Sears, Ford, GM, General Foods, Target etc.
 - Think World Trade Center here also
- Credit card transaction centers for major banking institutions like Wachovia, NationsBank, Chase, American Express, Discover etc.
- Data storage or record storage facilities
 - Iron Mountain data storage sites

- Computer centers that run International and National computer systems that link these commercial business to each other

Special events of national significance

- They are referring to large public venues where large masses (50k) of citizens come together at
 - Sport stadiums of major universities or cities holding more than 50k
 - Commercial or Local Convention Centers where more than 50 K might be attending a convention under one roof
 - Major amusement parks
 - NASCAR or Indy style race tracks
 - Horse racing tracks of national significance
 - National Monuments or National Parks

Transportation, including railways, highways, shipping ports and waterways

- Interstate, US or State highways linking major metropolitan areas together or that would be “evacuation routes” from these areas
 - Always list the average daily traffic count (ADTC) and commercial traffic count from your state DOT
 - List the # of miles you cover
 - List the number of lanes of traffic
 - List what major metropolitan areas they link and or if they are a “designated” evacuation routes from those areas
- Bridges over waterways or canyons and valleys that if collapsed would cause serious economic catastrophe or catastrophic loss of life
 - Think Golden Gate, Verrazano Narrows, George Washington, Sunshine Skyway type bridges here when thinking of catastrophic loss of life
 - Smaller bridges for both vehicular and rail traffic if the collapse would cause a catastrophic economic loss such as a major 50-100 mile detour or, serious disruption of public safety
- Railroads
 - Get the yearly rail car count and haz-mat car count from the railroad and list the # of miles of track in your area
- Ports
 - These are major ports for commercial ship traffic
- Navigable rivers or waterways that have commercial shipping traffic
 - Think Mississippi, Missouri, Ohio Rivers etc. where you have barge traffic on them.

Airports and civilian aircraft

- Referring to major airports here that have commercial passenger airline service and or handle commercial cargo terminals in them
 - You need to state the name of the airport, distance to it from you, how many passengers they handle a year and how many tons of cargo pass through it a year

- This would definitely include military air bases

Livestock, agriculture, and systems for the provision of water and food for human use and consumption

- Think agri-terrorism here
 - Major food production facilities
 - Grain storage facilities
 - Fertilizer plants or production and storage facilities
 - Livestock feed yards or slaughter houses

Generally speaking the more of these things you list , the more need is expressed so they are very important not to neglect in your applications and are directly tied to the latest initiatives which will be seeking input of “actual or potential risk”.

There are probably more of these than you think in your area, so look closely and ask questions. Some of the other things that would be important to consider, although technically not considered “critical infrastructure” would be:

Public and Private schools and universities or colleges

- List total of students daily

Hospitals

- List the number of beds
- What level of trauma center are they

Major manufacturing facilities

- Particularly if they use haz-mats or
- are more than 100k sq, feet in size

Trucking terminals for major trucking companies

Take a good drive through your primary response areas and your mutual areas and make notes of these things and then call and get further information about them. This is all part of “risk assessment” which will be a critical part of successful grant applications now and in your future.