

Handling of Sensitive Unclassified (Nonsafeguards) Information on Nuclear Power Reactors That Could Reasonably Be Expected to Be Useful to a Potential Adversary

Safeguards information (SGI) is information not otherwise classified as national security information or restricted data which specifically identifies a licensee's or applicant's detailed, (1) security measures for the physical protection of special nuclear material or (2) security measures for the physical protection and location of certain plant equipment vital to the safety of production or utilization facilities. However, there may be information that could reasonably be expected to be useful to a potential adversary that does not meet the requirements established for designating the information as SGI. This information will be treated as sensitive unclassified (non-SGI) information in accordance with established agency procedures and regulations. Information obtained from or provided to licensees and determined to be sensitive unclassified (non-SGI) information should be treated similar to commercial or financial information and withheld from public disclosure under 10 CFR 2.390. Information shared with other government agencies and licensees may be treated in a similar fashion unless addressed by other handling requirements (e.g., sensitive homeland security information).

In determining what information "could reasonably be expected to be useful to potential adversaries," one needs to assess the relevance of the specific information to an adversary's ability to plan or execute an attack or other malevolent act and the ability of a licensee or government agency to respond to such an attack. The discussion below is not intended to exemplify detailed threat or vulnerability assessments since decisions regarding the release or withholding of most information are expected to be made at the staff level within each program office. It is presented here to provide a thought process that has generally been consistent with the staff's intuitive evaluation of information.

The control of information needs to consider the following factors:

- The threat

The control of information as part of an overall program to safeguard against the intentional release of radioactive materials needs to consider those threats for which the withholding of information might be helpful. The assessment is not limited to or even related to the design basis threat (DBT) but should consider the entire range of possible malevolent acts against a nuclear power reactor or other licensed activity. The assessments and evaluations are, at this point, based largely on staff judgments unless more detailed simulations or vulnerability assessments are available. The wide range of possible attacks against a nuclear power plant means that few issues will be decided based on the absence of a credible threat. For example, detailed layout drawings of the facility are to be withheld to ensure they do not assist adversaries in planning an attack on critical plant systems even though a security program is in place to thwart such an attack. The primary protection against an attack on a nuclear power plant is the security program. Information related to the security program that is not otherwise designated as SGI (e.g., information on training, inspection reports, performance assessments) may provide insights into the program and is likely to be withheld in accordance with 10 CFR 2.390.

- The consequences

For each of the possible threats, there is a possible consequence in terms of harm to the public. The consequences of events involving NRC licensees, including nuclear reactors, include the possible release of radioactive materials that might adversely affect public health and safety. In the worst case, an attack on a nuclear reactor could cause plant transients and losses of mitigating systems, leading to core damage and a major release of fission products. The consequences for other threats could involve lesser releases (e.g., from waste systems) or possibly no releases of radioactive materials. The possible consequences associated with a particular licensed activity is usually reflected in the licensing processes and regulatory controls placed on those activities. The decision to withhold or release information needs to consider the possible consequences of events such that our controls on information correlate to the potential harm (i.e., information would not be treated as sensitive unless it relates to the potential release or diversion of radioactive materials posing a threat to public health and safety). Information related to events that are analyzed and result in doses below established regulatory thresholds (including many design basis accidents) may be released since the consequences have been determined to result in minimal risk to the public health and safety. The staff should consider the possible combinations of events and potential losses of mitigating systems that might result from a terrorist attack before concluding too quickly that the consequences of a threat are adequately addressed by an existing licensing-basis type analysis.

- The relationship of design/operating limits to security programs

Information related to security programs at nuclear reactors is generally designated SGI and is protected in a manner similar to classified confidential information. For nuclear reactors, the security program is quite extensive and is established to prevent the loss of the engineering barriers designed to prevent the release of radioactive materials. Information regarding the engineering barriers themselves has been part of the public record. The design information may be withheld when it is used in the context of a security-related vulnerability assessment. For example, the traditional analysis of a structure against design basis winds will be released but an analysis related to structural failures from an explosive charge will be withheld.

- The availability of information from other sources

In assessing the control of information, it is important to assess the availability of the information or similar information from sources outside the control of the NRC or its licensees. If the information is available from open source literature such as text books, Web sites, or other sources, an NRC decision to withhold the information may decrease the openness of our regulatory programs without obstructing an adversary. For example:

- ▶ Information on the geospatial coordinates for facilities is released since this information is readily available in the public realm
- ▶ Information on evacuation routes is released since it is routinely provided to the public for emergency planning purposes

- ▶ Information clearly visible from locations accessible to the public near the site is generally released. This includes general (low-resolution) layout drawings of the site and adjacent areas, including drawings showing the plant connections to the electric transmission system.
- ▶ Information related to the general workings of a nuclear power plant such as the descriptions usually provided in licensing documents (e.g., updated final safety analysis reports, license renewal applications) are released since similar information (at the level useful to a potential adversary) is available in open source literature such as text books and Internet sites. This level of information includes listings and general descriptions of safety-related and important-to-safety systems (including nonsecurity-related probabilistic risk assessments such as those included in accident sequence precursor analyses, risk-informed changes to technical specifications, and significance determination process notebooks). Information regarding such systems will be withheld in a context such as a vulnerability assessment (e.g., how a system might be affected by attacks or other malevolent acts).
- The subsequent controls on the information

In deciding to withhold information coming to or issued by the NRC, we need to consider how the information will be controlled by other parties with access to it. For example, we may negatively affect our goals regarding effectiveness or openness if we strive to withhold information and the information is then released by a licensee or other government agency. DHS may develop requirements or guidance for controlling information shared between licensees and Federal, State, and local governments when the information is designated “sensitive homeland security information.”

This assessment will also address how the information and its controls are incorporated into other licensee and regulatory processes. For example, COMSECY-03-0036 discussed the removal of some specific information from final safety analysis reports (FSARs) to address potential security concerns and the subsequent restoration of the FSARs to the public domain without the need to develop public/nonpublic versions. The proposed handling of FSARs described in COMSECY-03-0036 was also intended to minimize potential adverse effects on regulatory programs such as the evaluations required by 10 CFR 50.59, “Changes, tests, and experiments.” Any concerns regarding conflicting determinations (e.g., a finding that information should be withheld due to an assessment of its possible usefulness to an adversary and a regulatory need to make the information public) should be reported to agency management for resolution.

- The requirements and guidance established by other government agencies

In deciding on the appropriate handling of information received from or provided to licensees, the staff should consider whether rules or guidance from other Federal agencies are in play. If the information is received from another agency and is identified by that agency as sensitive unclassified information, the staff should honor the designation and handle the information accordingly. Most information addressed by other federal agencies and of concern to the NRC staff or reactor licensees relates to infrastructure located near the nuclear power plant. Examples are the designation critical energy infrastructure information (CEII) for information related to hydroelectric dams regulated by the Federal Energy Regulatory Commission (FERC) and the withholding of maps showing pipelines under the jurisdiction of the Department of Transportation. The staff should make every effort to follow the guidance of other agencies in the review and designation of information related to facilities or activities for which another agency has the lead authority. Most of the Information on electric transmission systems provided to FERC (through its periodic Form 715) is designated CEII. Some documents provided to the NRC (e.g., updated final safety analysis reports and environmental reports related to license renewal applications) include information on electric transmission lines associated with nuclear power reactors. The information usually provided to the NRC is a subset of the information reported to FERC and relates only to power lines easily visible from the site environs. The NRC will need to make public some information on electric transmission systems supporting nuclear power plants since the information is integral to major licensing decisions and related environmental findings.

The staff has applied the above guidance to information routinely exchanged between licensees and the NRC to help the staff and licensees evaluate and control documents. The example subjects addressed in the following table include the technical areas identified in Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants," as well as several other subjects addressed in routine correspondence associated with nonsecurity-related activities for nuclear power reactors. Information presented in the context of vulnerability assessments or other security-related matters will usually be withheld from public disclosure. These or similar examples will be included in guidance documents and will be routinely updated for use by the staff and licensees.

Control of Information by Subject Matter	
Subject	Discussion and/or typical controls
General Description of Plant	Decisions regarding the control of information (usually drawings) that describe plant sites and buildings are dependent on the level of detail. Information clearly visible from locations accessible to the public near the site is generally released. This includes general (low-resolution) layout drawings of the site and adjacent areas. Drawings showing details such as the specific locations of equipment within buildings, doorways, stairways, etc. are to be withheld under 10 CFR 2.390.

Subject	Discussion and/or typical controls
<p>Site Characteristics:</p> <p>Geography and demography</p> <p>Nearby Industrial, transportation, and military facilities</p> <p>Meteorology</p> <p>Hydrologic Engineering</p> <p>Geology, seismology, and geotechnical engineering</p> <p>Design of Structures, Components, Equipment, and Systems</p>	<p>Uncontrolled</p> <p>Guidance related to the control of information related to non-nuclear facilities located near nuclear power plants may be available from other federal agencies (e.g., DHS, FERC, EPA, DOT). The staff should make every effort to follow the guidance of other agencies in the review and designation of information related to facilities or activities for which another agency has the lead authority. Specific examples include pipeline data (usually withheld per DOT) and chemical facilities (some data withheld per EPA). In addition to the guidance from other agencies, the staff will also withhold information related to nearby industrial facilities if the information might reasonably be helpful to those planning an attack on a nuclear power plant.</p> <p>Uncontrolled</p> <p>Uncontrolled with the exception of information regarding the design of nearby dams. Information on dams may be designated critical energy infrastructure information by FERC.</p> <p>Uncontrolled</p> <p>Information regarding the design of structures provided to the NRC typically consists of analyses to show that the design feature will withstand the combinations of forces associated with design basis events and natural hazards. The analyses do not typically provide realistic information on the failure of structural features and are not considered sensitive. Information related to actual structural failures that could be useful to terrorists will be withheld.</p>
<p>Reactor (Nuclear, Thermal-hydraulic designs, Materials)</p>	<p>Uncontrolled</p>
<p>Reactor Coolant System</p>	<p>Uncontrolled</p>

Subject	Discussion and/or typical controls
Engineered Safety Features	Information provided to the NRC on engineered safety features usually relates to their design, maintenance, or operation during routine activities or design basis transients (i.e., nonsecurity related events) and is not treated as sensitive. Detailed layout drawings showing the actual location of equipment is withheld under 10 CFR 2.390. Discussions of safety features or mitigation strategies within vulnerability assessments will also be withheld from public disclosure.
Instrumentation and Controls	Uncontrolled
Electric Power	Information provided to the NRC on offsite and onsite electric power systems typically relate to their design, maintenance, or operation during routine activities or design basis transients (i.e., nonsecurity related events) and is not treated as sensitive. It is necessary for the NRC to make public some information on electric transmission systems supporting nuclear power plants since the information is integral to major licensing decisions and related environmental findings (e.g., information usually provided with license renewal applications). Information on the transmission grid beyond that needed for NRC regulatory decisions is likely to be withheld in accordance with the FERC guidance on critical energy infrastructure information.
Auxiliary Systems (Fuel storage, ultimate heat sink)	Uncontrolled- This includes general (low-resolution) layout drawings of the site and descriptions and drawings such as the arrangement of spent fuel within spent fuel pools. Drawings showing details such as the specific location of equipment, doorways, stairways, etc. are to be withheld under 10 CFR 2.390.
Steam and Power Conversion	Uncontrolled
Radioactive Waste Management	Uncontrolled - This includes general (low-resolution) layout drawings of the site. Drawings showing details such as the specific location of equipment, doorways, stairways, etc. are to be withheld under 10 CFR 2.390.
Radiation Protection	Uncontrolled - This includes general (low-resolution) layout drawings of the site and adjacent areas. Drawings showing details such as the specific location of equipment, doorways, stairways, etc. are to be withheld under 10 CFR 2.390.
Conduct of Operations	Uncontrolled (excluding security)

Subject	Discussion and/or typical controls
Test Program (Initial and Inservice Inspections and Testing)	Uncontrolled
Accident Analysis	Uncontrolled - Accident analyses typically included in licensing-related correspondence involve conservative models to demonstrate a plant's ability to respond to design basis transients (i.e., nonsecurity related events), and is not treated as sensitive.
Technical Specifications (including Bases)	Uncontrolled
Quality Assurance	Uncontrolled
Fire Protection	Incoming documents are initially profiled as nonpublic - staff will review for release upon request. Most information related to fire protection will not need to be designated as sensitive. Drawings showing details such as the specific location of equipment, doorways, stairways, etc. are to be withheld under 10 CFR 2.390.
Emergency Planning	Incoming documents are initially profiled as nonpublic - staff will review for release upon request. Most information related to emergency planning will not need to be designated as sensitive. Special attention is needed to determine if information relates to the response by a licensee or government agency to a terrorist attack. Note that some State and local governments consider parts of their emergency plans to be sensitive.
Security	Information related to security programs at nuclear reactors is generally designated as SGI and is protected in a manner similar to classified confidential information. Security-related information within the inspection program and reactor oversight process is withheld from public disclosure under 10 CFR 2.390.
Risk-Informed Decisionmaking (e.g., documents related to risk-informed licensing actions, accident sequence precursor (ASP) analyses, significance determination process (SDP) notebooks, design certifications)	Uncontrolled - exceptions include information related to security activities (e.g., vulnerability assessments) and information related to uncorrected configurations or conditions that could be useful to an adversary. Special attention should be applied to this area and information should be withheld if it describes a vulnerability or plant-specific weakness that is more helpful to an adversary than are the insights provided in open source literature. Detailed computer models have been and will continue to be withheld from public disclosure.

Subject	Discussion and/or typical controls
Inspections & Performance Assessment	Uncontrolled - exceptions include information on security-related inspections or performance assessments and information related to uncorrected vulnerabilities that could be useful to an adversary.
Current Plant Configurations	Information on current plant configurations or conditions that could be useful to an adversary (e.g., important safety equipment out of service) is withheld from public disclosure (usually by simply timing its release) until such time as the information no longer reflects current plant conditions.