Table for Applying the Risk-based Decision-making Process

Step 1: Establish the Decision Structure	
Step 1a: Define the decision	
Description: Specifically describe what decision(s) must be made. Major categories of decisions include (1) accepting or rejecting a proposed facility or operation, (2) determining who and what to inspect, and (3) determining how to best improve a facility or operation.	
Step 1b: Determine who needs to be involved in the decision	
Description: Identify and solicit involvement from key stakeholders who (1) should be involved in making the decision or (2) will be affected by actions resulting from the decision-making process.	
Step 1c: Identify the options available to the decision maker	
Description: Describe the choices available to the decision maker. This will help focus efforts only on issues likely to influence the choice among credible alternatives.	
Step 1d: Identify the factors that will influence the decision (including risk factors)	
Description: Few decisions are based on only one factor. Most require consideration of many factors, including costs, schedules, risks, etc., at the same time. The stakeholders must identify the relevant decision factors.	
Step 1e: Gather information about the factors that influence stakeholders	
Description: Perform specific analyses (e.g., risk assessments and cost studies) to measure against the decision factors.	

Step 2: Perform the Risk Assessment	
Step 2a: Establish the risk-related questions that need answers	
Description: Decide what questions, if answered, would provide the risk insights needed by the decision maker.	
Step 2b: Determine the risk-related information needed to answer the questions	
Description: Describe the information necessary to answer each question posed in the previous step. For each information item, specify the following: • Information type needed • Precision required • Certainty required • Analysis resources (staff-hours, costs, etc.) available	
Step 2c: Select the risk analysis tool(s)	
Description: Select the risk analysis tool(s) that will most efficiently develop the required risk-related information.	
Step 2d: Establish the scope for the analysis tool(s)	
Description: Set any appropriate physical or analytical boundaries for the analysis.	
Step 2e: Generate risk-based information using the analysis tool(s)	
Description: Apply the selected risk analysis tool(s). This may require the use of more than one analysis tool and may involve some iterative analysis (i.e., starting with a general, low-detail analysis and progressing toward a more specific, high-detail analysis).	

Step 3: Apply the Results to Risk Management Decision Making	
Step 3a: Assess possible risk management options	
Description: Determine how the risks can be managed most effectively. This decision can include (1) accepting/rejecting the risk or (2) finding specific ways to reduce the risk.	
Step 3b: Use risk-based information in decision making	
Description: Use the risk-related information within the overall decision framework to make an informed, rational decision. This final decision-making step often involves significant communication with a broad set of stakeholders.	
Step 4: Monitor Effectiveness Through Impact Assessment	
Description: Track the effectiveness of actions taken to manage risks. The goal is to verify that the organization is getting the expected results from its risk management decisions. If not, a new decision-making process must be considered.	
All Steps: Facilitate Risk Communication	
Description: Encourage two-way, open communication among all stakeholders so that they will: • Provide guidance on key issues to consider • Provide relevant information needed for assessments • Provide buy-in for the final decisions	