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US Army Corps of Engineers®

U.S. ARMY CORPS OF ENGINEERS
PROTECTIVE DESIGN CENTER
TECHNICAL REPORT

WEAPONS SAFETY ASSESSMENT
Volume 2 of 5 – Template

Prepared for:
U.S. NUCLEAR REGULATORY COMMISSION –
OFFICE OF NUCLEAR SECURITY AND INCIDENT RESPONSE

Prepared by:
R. Ward & Associates, Inc.

When separated from Volumes 4 and 5 of the WSA, this volume is DECONTROLLED

DISCLAIMER

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FORWARD

Submission of a weapons safety assessment (WSA) is one component of an application by a licensee or certificate holder (hereafter referred to as "applicant") to the U.S. Nuclear Regulatory Commission (NRC) for combined enhanced weapons authority and preemption authority. Refer to 10 CFR 73.18[1] and DG-5020[2] for complete details on the application process. Applicants for stand-alone preemption authority are not required to complete a WSA.

Enhanced weapons, as defined in 10 CFR 73.2[3], means any short-barreled shotgun, short-barreled rifle, or machine gun as defined in 27 CFR 478.11[4]. Enhanced weapons do not include destructive devices as defined at 18 U.S.C. § 921(a)(4)[5].

This report presents a WSA methodology acceptable to the NRC for an application for combined enhanced weapons authority and preemption authority; however, it is not exclusive. Other methodologies based on sound safety, scientific, and engineering principles are also acceptable.

This report is presented in five volumes. The content of each volume is described below.

- *Volume 1: Template Instructions* - This volume provides detailed instructions for completing the WSA template presented in Volume 2: Template. Section numbering of the explanations and instructions in this volume correspond to the section numbering of the template to facilitate ease of navigation between the two volumes.
- *Volume 2: Template* – This volume provides a template for information to be included in the WSA for submittal to NRC.

[1] Title 10 of the *Code of Federal Regulations* (10 CFR) 73.18, "Authorization for Use of Enhanced Weapons and Preemption of Firearms Laws" (Unclassified)

[2] Draft Regulatory Guide (DG)-5020, "Applying for Enhanced Weapons Authority, Applying for Preemption Authority, and Accomplishing Firearms Background Checks Under 10 CFR Part 73" (Unclassified)

[3] 10 CFR 73.2, "Definitions" (Unclassified)

[4] 27 CFR Part 478, "Commerce in Firearms and Ammunition" (Unclassified)

[5] Title 18 United States Code, Chapter 44, "Gun Control Act of 1968" (Unclassified)

- *Volume 3: Review Criteria* – This volume describes the criteria that NRC will use in evaluation of a submitted WSA.
- *Volume 4: Reference Documents* – This volume is a collection of digital files that can be used by the applicant for additional information. The information pertains to weapons, weapons maintenance, training, and range design and range safety.
- *Volume 5: Sample Template* – This volume provides an example of a completed WSA template for a fictitious site. This is a clarification tool and visual aid to the applicant.

Completion of the template should be accomplished by a team composed of members from various elements of the applicant's organization. Examples of elements outside of security and what they can contribute are as follows:

- Facility safety office personnel can provide information on chemicals and other hazardous items on the site.
- Facility emergency preparedness office personnel can provide information on the surrounding community.
- Facility engineering office personnel can provide drawings and maps as well as construction details for structures containing risk items.

The applicant's team should include at least one subject matter expert familiar with automatic and large caliber firearm usage to assist with the selection, risk evaluation, documentation, planning, training, and possible training range modifications for use of the enhanced weapons.

The information in this report has been determined to be Official Use Only – Security-Related Information and is to be withheld from public disclosure under 10 CFR 2.390[6].

However, once site specific information has been placed in the template contained in Volume 2, the applicant should mark, label, control, store, and transmit the document as safeguards information or classified information, as appropriate. The applicant should determine, using applicable guidance, the appropriate sensitivity level of the information and protect it accordingly.

[6] 10 CFR 2.390, "Public Inspections, Exemptions, Requests For Withholding" (Unclassified)

2-1: GENERAL INFORMATION	
1. Facility Name:	2. Submittal Date:
3. Physical Address:	4. Is this a re-submittal?
5. City, State, Zip: ,	
6. Facility Phone Number: ( )	
7. Mailing Address:	
8. City, State, Zip: ,	
9. Mailing Address Phone Number: ( )	
10. Applicant Point of Contact (POC):	
11. Position Title of Applicant POC:	
12. Work phone no.:	( )
13. Alternate phone no.:	( )
14. POC's E-Mail Address:	
15. Alternate Point of Contact (POC):	
16. Position Title of Alternate POC:	
17. Work phone no.:	( )
18. Alternate phone no.:	( )
19. Alternate POC's E-Mail Address:	
20. Plant Manager:	
21. Work phone no:	( )
22. Alternate phone no:	( )
23. Plant Manager's E-Mail Address:	

For additional instructions press ctrl and click.

2-2: DESIRED WEAPON
(A weapons safety assessment is required for each specific enhanced weapon desired. If multiple enhanced weapons are desired, a weapon safety assessment must be submitted for each specific weapon.)
24. **Select an enhanced weapon category**:
25. **Identify the specific manufacturer, model, and caliber/gauge of weapon desired:**
26. **Enter the Maximum Range (meters):**
27. **How many of the desired weapons are being requested:**
28. **How many will normally be deployed:**

2-3: AMMUNITION USED					
NOTE: The user should consult the weapon manufacturer's documentation for recommended/acceptable ammunition for the selected weapon system.					
29. **Check all of the ammunition types below that are to be used with this weapon.**					
	Type of Ammunition				
☐	Ball	☐	Tracer	☐	Plastic (less-lethal)
☐	Armor Piercing	☐	Hollow Point	☐	Frangible
☐	Slug	☐	Buckshot	☐	Birdshot
☐	Other (specify):				

Figure 2-3.1

2-4: WEAPON DEPLOYMENT	
30. **Check all types of deployment for the weapon. Check all that apply.**	
☐	As a remotely operated weapon system (ROWS) from fixed position/s. (If checked, applicant *must* describe in Item 33.)
☐	The weapon will be used from fixed position/s. (e.g., guard towers, roof tops, etc.)
☐	The weapon will be used from a designated firing point/s. (e.g., guard towers, roof tops, etc.)
☐	The weapon will be used while patrolling the property. (e.g., foot patrols, vehicle patrols, etc.)
☐	The weapon will be used inside facility buildings. (e.g., interior fighting position, checkpoints, patrols, etc.)
☐	The weapon will only be used within a small defined area of the property.
☐	The weapon will be used in many situations and areas of the property.

Figure 2-4-1

31. **Additional description of weapon deployment:** (Describe how and where this weapon will be used and in what type of situations. Include how the weapon will be carried, either by individuals or roving patrol, i.e., "locked in a rack" or "loaded with un-chambered round", etc. Also note if the weapon will be replacing a different caliber weapon.)
32. **Range Cards.** Create a Standard Range Card for any enhanced weapon that is being used from a fixed position and attach to the end of the weapons safety assessment. Standard Range Cards and instructions for their use can be found in Volume 4, References (Army Field Manual, Combat Skills of the Soldier, Appendix I; Army FM 21-75, and Standard Range Card, Department of the Army, DA 5517-R,). (*All manuals change periodically and a web search should be conducted to ensure the latest version is being used.)*
33. **ROWS discussion:** a. Describe how many ROWS will be in use at the facility. b. Describe where these weapons will be placed. c. Describe where the weapons will be controlled from (location). d. Describe how many ROWs will each operator control. e. Describe any restrictions on field of fire. f. Describe any steps taken or conditions of the site that avoid crossfire.
34. **Describe any pertinent training and describe the level of training**. Attach supporting documentation to application.

2-5: MAP INFORMATION
Maps can be referred to from other plans or sent as electronic or paper attachments. The applicant is responsible for submitting all maps, facility diagrams, standard range cards and other materials used to determine encroachments, buffer zones, and mitigating measures, Risk Items, likelihoods, and consequences. The applicant may find it necessary to add to or update Item 35 repeatedly while working through the template, as map comments may arise throughout the process of completing this template.
35. Provide any pertinent map comments or explanations:

2-6: INITIAL AREA DANGER RING
Create initial ADR, following the instructions provided in Volume 1, Section 2-6.

2-7: PROPERTY BOUNDARY ASSESSMENT AND ENCROACHMENT ISSUES

36. Enter the percentage of each type of boundary buffer or encroachment type that surrounds the facility. These percentages should equal 100%. Double click on the table below to open the Excel object for inputting data. Click outside the table to close.

Buffers	%	Buffers	%
River		Lake	
Ocean		Federal Property	
State Property		Farmland or Undeveloped Property	
Other Buffer			
Encroachments		**Encroachments**	
Residential Area	0	Light Industry	
Heavy Industry		Retail Property	
Recreational Areas		Other Encroachment	
		Total	0

Risk Level	1	Very Low
Percent Encroachment		0

Table 2.-7.1 Item 36

37. Describe any pertinent information pertaining to property buffer or encroachment areas (i.e. Describe what any federal or state owned property is used for; parks, recreation, military purposes. Describe natural barriers such as mountains, sloping terrain, man-made earthen berms, etc):

2-8: RISK IDENTIFICATION, EVALUATION AND MITIGATION

Risk Items
Identify all risk items within the initial ADR. Assign each at Risk Item a level of likelihood and consequence. There are empty spaces left in the tables to add other risk items that are not already identified. Note: Items can be mitigated as a group if they are in close proximity to each other and have similar "likelihood and consequence".
It is recommended that initial risk identification involve several people from various elements of the applicant's organization.

38. Chemical and Petroleum/Fuel Risks in the initial ADR
For evaluating risk items associated with chemicals and the potential release of chemical gases, fire or explosions; consider chemicals and fuels stored at the facility first, but also consider that storage tanks 500 – 1500 meters away can easily be punctured by some of the ammunitions listed in Appendix B, Volume 4. The Facility Chemist/Engineer should be consulted on the selection of said chemicals. The applicant is responsible for determining the content of the table input and analyzing their risks.

Please scroll to the next table. Do not "Tab".

38. Chemical and Petroleum/Fuel risks in the initial ADR.

(Double click on the table to open Excel for inputting data. Enable Macros if screen appears.)

Item ID	Risk Item	Inside ADR[1]		Likelihood of Strike	Consequence of Strike[2]	Risk Level	
		Initial	Mitigated				
38a		No	No	N/A	N/A	0	N/A
38b		No	No	N/A	N/A	0	N/A
38c		No	No	N/A	N/A	0	N/A
38d		No	No	N/A	N/A	0	N/A
38e		No	No	N/A	N/A	0	N/A
38f		No	No	N/A	N/A	0	N/A
38g		No	No	N/A	N/A	0	N/A
38h		No	No	N/A	N/A	0	N/A
38i		No	No	N/A	N/A	0	N/A
38j		No	No	N/A	N/A	0	N/A
38k		No	No	N/A	N/A	0	N/A
38l		No	No	N/A	N/A	0	N/A
38m		No	No	N/A	N/A	0	N/A
38n		No	No	N/A	N/A	0	N/A
38o		No	No	N/A	N/A	0	N/A
38p		No	No	N/A	N/A	0	N/A
38q		No	No	N/A	N/A	0	N/A
38r		No	No	N/A	N/A	0	N/A
38s		No	No	N/A	N/A	0	N/A
38t		No	No	N/A	N/A	0	N/A
38u		No	No	N/A	N/A	0	N/A
38v		No	No	N/A	N/A	0	N/A
38w		No	No	N/A	N/A	0	N/A
38x		No	No	N/A	N/A	0	N/A
38y		No	No	N/A	N/A	0	N/A

Average Risk Level	**0.00**
Enter Training Factor to reduce Mitigation, must submit supporting documentation. Enhanced=.25,and Specialized=.50.	**0.00**
Mitigated Risk Level	**0.00**

Enter mitigated risk level in section 2-10 summary table.

1 - For each item inside the Initial ADR but outside Mitigated ADR explain mitigating circumstances in the corresponding discussion field.

2 - If mitigating circumstances (e.g. risk item is buried, behind barrier that round being considered cannot penetrate, etc.) exist or are planned, explain in corresponding discussion area below.

3- Assume all buildings are un-occupied and include people that would normally be in these Buildings under the people line item.

38. The applicant justifies the likelihood and consequence levels for each at Risk Item in the areas provided below. Select only one Type of Mitigation for each at Risk Item and describe in detail the mitigation steps taken to alleviate or lower the risk factor. The "Other Discussion" field can be used for any additional information supporting risk mitigation.			
38a. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38b. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38c. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38d. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38e. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38f. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38g. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38h. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38i. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38j. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38k. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38l. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38m. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38n. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38o. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38p. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

38q. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38r. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38s. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38t. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38u. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38v. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38w. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38x. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
38y. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

39. Key Facilities/areas Inside the PA
For evaluating Risk Items associated with key facilities and areas inside the protected area (PA), consider Risk Items that are not always obvious. For example, a diesel generator that if destroyed would not be hazardous, but it is a vital backup power source.
Note: Applicants should include those systems, structures, components and operator actions that if unable to perform their required function, would lead to significant core damage or radiological sabotage of spent fuel. This section identifies key facilities or areas within the sectors of fire. All facilities should be identified and risks associated with each as pertaining to "Public Health and Safety" or under "Business Category" with consideration to how it affects future plant operations. Refer to the instructions in Volume 1 for additional information.

(Do not select Spent Fuel Rods, Dry Storage) if it is an independent fuel storage installation (ISFSI) outside of the PA.

Please scroll to the next table. Do not "Tab".

39. Key Facilities/Areas Inside the PA

(Double click on the table to open Excel for inputting data. Enable Macros if screen appears.)

Item ID	Risk Item	Inside ADR[1]		Likelihood of Strike	Consequence of Strike[2]	Rated	Risk Level	
		Initial	Mitigated					
39a	Spent Fuel Rods, Dry	No	No	N/A	N/A		0	N/A
Enter Critical Assets below								
39b		No	No	N/A	N/A		0	N/A
39c		No	No	N/A	N/A		0	N/A
39d		No	No	N/A	N/A		0	N/A
39e		No	No	N/A	N/A		0	N/A
39f		No	No	N/A	N/A		0	N/A
39g		No	No	N/A	N/A		0	N/A
39h		No	No	N/A	N/A		0	N/A
39i		No	No	N/A	N/A		0	N/A
39j		No	No	N/A	N/A		0	N/A
39k		No	No	N/A	N/A		0	N/A
39l		No	No	N/A	N/A		0	N/A
39m		No	No	N/A	N/A		0	N/A
39n		No	No	N/A	N/A		0	N/A
39o		No	No	N/A	N/A		0	N/A
39p		No	No	N/A	N/A		0	N/A
39q		No	No	N/A	N/A		0	N/A

Average Risk Level	**0.00**
Enter Training Factor to reduce Mitigation, must submit supporting documentation. Enhanced=.25,and Specialized=.50.	**0.00**
Mitigated Risk Level	**0.00**

Enter mitigated risk level in section 2-10 summary table.

1 - For each item inside the Initial ADR but outside Mitigated ADR explain mitigating circumstances in the corresponding discussion field.

2 - If mitigating circumstances (e.g. risk item is buried, behind barrier that round being considered cannot penetrate, etc.) exist or are planned, explain in corresponding discussion area below.

39. The applicant justifies the likelihood and consequence levels for each at Risk Item in the areas provided below. Select only one Type of Mitigation for each at Risk Item and describe in detail the mitigation steps taken to alleviate or lower the risk factor. The "Other Discussion" field can be used for any additional information supporting risk mitigation.			
39a. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39b. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39c. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39d. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39e. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39f. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39g. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39h. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39i. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39j. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39k. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39l. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39m. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39n. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39o. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
39p. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

39q. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

40. Key Facilities/areas Outside the PA but on the Facility's Property
For evaluating risk items associated with key facilities and areas outside the protected area but on the facility's property, consider risk items that are not always obvious. For example, a diesel generator that if destroyed would not be hazardous, but it is a vital backup power source.
Note: Applicants should include those systems, structures, components and operator actions that if unable to perform their required function, would lead to significant core damage or radiological sabotage of spent fuel. This section identifies key facilities or areas within the sectors of fire. All facilities should be identified and risks associated with each as pertaining to "Public Health and Safety" or under "Business Category" with consideration to how it affects future plant operations. Refer to the instructions in Volume 1 for additional information.

40. Key Facilities/Areas Outside the PA but on the Facility's Property
(Double click on the table to open Excel for inputting data. Enable Macros if screen appears.)

Item ID	Risk Item	Inside ADR[1]		Likelihood of Strike	Consequence of Strike[2]	Risk Level	
		Initial	Mitigated				
40a		No	No	N/A	N/A	**0**	**N/A**
40b		No	No	N/A	N/A	**0**	**N/A**
40c		No	No	N/A	N/A	**0**	**N/A**
40d		No	No	N/A	N/A	**0**	**N/A**
40e		No	No	N/A	N/A	**0**	**N/A**
40f		No	No	N/A	N/A	**0**	**N/A**
40g		No	No	N/A	N/A	**0**	**N/A**
40h		No	No	N/A	N/A	**0**	**N/A**
40i		No	No	N/A	N/A	**0**	**N/A**
40j		No	No	N/A	N/A	**0**	**N/A**
40k		No	No	N/A	N/A	**0**	**N/A**
40l		No	No	N/A	N/A	**0**	**N/A**
40m		No	No	N/A	N/A	**0**	**N/A**
40n		No	No	N/A	N/A	**0**	**N/A**
40o		No	No	N/A	N/A	**0**	**N/A**
40p		No	No	N/A	N/A	**0**	**N/A**
40q		No	No	N/A	N/A	**0**	**N/A**
40r		No	No	N/A	N/A	**0**	**N/A**
					Average Risk Level	**0.00**	

Enter Training Factor to reduce Mitigation, must submit supporting documentation. Enhanced=.25,and Specialized=.50.

Mitigated Risk Level	**0.00**

Enter mitigated risk level in section 2-10 summary table.

1 - For each item inside the Initial ADR but outside Mitigated ADR explain mitigating circumstances in the corresponding discussion field.

2 - If mitigating circumstances (e.g. risk item is buried, behind barrier that round being considered cannot penetrate, etc.) exist or are planned, explain in corresponding discussion area below.

3- Assume all buildings are un-occupied and include people that would normally be in these Buildings under the people line item.

40. The applicant justifies the likelihood and consequence levels for each at Risk Item in the areas provided below. Select only one Type of Mitigation for each at Risk Item and describe in detail the mitigation steps taken to alleviate or lower the risk factor. The "Other Discussion" field can be used for any additional information supporting risk mitigation.			
40a. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40b. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40c. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40d. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40e. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40f. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40g. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40h. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40i. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40j. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40k. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40l. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40m. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40n. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40o. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40p. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

40q. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
40r. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

41. Key Facilities/areas Outside the Property Boundaries
For evaluating risk items associated with key facilities outside the property boundaries, refer often to the IADR created in 2-6 of the Volume 1 Template Instructions. Create lists of structures, companies, shopping areas and facilities within the ring, then discuss how a stray round may affect that item and if there are other barriers between it and the facility that would lessen the chance of a stray round reaching it. This section identifies key facilities or areas within the sectors of fire. All facilities should be identified and risks associated with each as pertaining to "Public Health and Safety" or under "Business Category" with consideration to how it affects future plant operations. Refer to the instructions in Volume 1 for additional information. .

Please scroll to the next table. Do not "Tab".

41. Key Facilities/Areas Outside the Property Boundaries (Refer to ADR Analysis)

(Double click on the table to open Excel for inputting data. Enable Macros if screen appears.)

Item ID	Risk Item	Inside ADR[1]		Likelihood of Strike	Consequence of Strike[2]	Risk Level	
		Initial	Mitigated				
41a		No	No	N/A	N/A	0	N/A
41b		No	No	N/A	N/A	0	N/A
41c		No	No	N/A	N/A	0	N/A
41d		No	No	N/A	N/A	0	N/A
41e		No	No	N/A	N/A	0	N/A
41f		No	No	N/A	N/A	0	N/A
41g		No	No	N/A	N/A	0	N/A
41h		No	No	N/A	N/A	0	N/A
41i		No	No	N/A	N/A	0	N/A
41j		No	No	N/A	N/A	0	N/A
41k		No	No	N/A	N/A	0	N/A
41l		No	No	N/A	N/A	0	N/A
41m		No	No	N/A	N/A	0	N/A
41n		No	No	N/A	N/A	0	N/A
41o		No	No	N/A	N/A	0	N/A
41p		No	No	N/A	N/A	0	N/A
41q		No	No	N/A	N/A	0	N/A
41r		No	No	N/A	N/A	0	N/A
41s		No	No	N/A	N/A	0	N/A
41t		No	No	N/A	N/A	0	N/A
41u		No	No	N/A	N/A	0	N/A

Average Risk Level	**0.00**
Enter Training Factor to reduce Mitigation, must submit supporting documentation. Enhanced=.25,and Specialized=.50.	**0.00**
Mitigated Risk Level	**0.00**

Enter mitigated risk level in section 2-10 summary table.

1 - For each item inside the Initial ADR but outside Mitigated ADR explain mitigating circumstances in the corresponding discussion field.

2 - If mitigating circumstances (e.g. risk item is buried, behind barrier that round being considered cannot penetrate, etc.) exist or are planned, explain in corresponding discussion area below.

3 - Terrain types that could potentially pose a fire hazard from stray/discharged rounds.

41. The applicant justifies the likelihood and consequence levels for each at Risk Item in the areas provided below. Select only one Type of Mitigation for each at Risk Item and describe in detail the mitigation steps taken to alleviate or lower the risk factor. The "Other Discussion" field can be used for any additional information supporting risk mitigation.			
41a. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41b. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41c. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41d. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41e. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41f. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41g. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41h. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41i. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41j. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41k. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41l. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41m. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41n. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41o. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41p. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

41q. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41r. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41s. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41t. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
41u. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

Please scroll to the next table. Do not "Tab".

42. Critical Asset Items Outside the Property Boundaries (Refer to ADR Assessment)
For evaluating risk items associated with critical asset items outside the property boundaries, refer often to the IADR created in 2-6 of the Volume 1 Template Instructions. Create lists of any other risk items that have not been covered in the analysis from previous sections. List these items within the ring, then discuss how a stray round may affect that item and if there are other barriers between it and the facility that would lessen the chance of a stray round reaching it. This section identifies critical assets within the sectors of fire. All critical assets should be identified and risks associated with each as pertaining to "Public Health and Safety" or under "Business Category" with consideration to how it affects future plant operations. Refer to the instructions in Volume 1 for additional information]n.

42. Critical Asset Items Outside the Property Boundaries (Refer to ADR Analysis)

(Double click on the table to open Excel for inputting data. Enable Macros if screen appears.)

Item	Enter Risk Item below	Inside ADR[1]		Likelihood of Strike	Consequence of Strike[2]	Risk Level	
		Initial	Mitigated				
42a		No	No	N/A	N/A	0	N/A
42b		No	No	N/A	N/A	0	N/A
42c		No	No	N/A	N/A	0	N/A
42d		No	No	N/A	N/A	0	N/A
42e		No	No	N/A	N/A	0	N/A
42f		No	No	N/A	N/A	0	N/A
42g		No	No	N/A	N/A	0	N/A
42h		No	No	N/A	N/A	0	N/A
					Average Risk Level	**0.00**	

Enter Training Factor to reduce Mitigation, must submit supporting documentation. Enhanced=.25, and Specialized=.50.

Mitigated Risk Level	**0.00**

Enter mitigated risk level in section 2-10 summary table.

1 - For each item inside the Initial ADR but outside Mitigated ADR explain mitigating circumstances in the corresponding discussion field.

2 - If mitigating circumstances (e.g. risk item is buried, behind barrier that round being considered cannot penetrate, etc.) exist or are planned, explain in corresponding discussion area below.

42. The applicant justifies the likelihood and consequence levels for each at Risk Item in the areas provided below. Select only one Type of Mitigation for each at Risk Item and describe in detail the mitigation steps taken to alleviate or lower the risk factor. The "Other Discussion" field can be used for any additional information supporting risk mitigation.			
42a. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42b. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42c. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42d. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42e. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42f. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42g. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			
Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			
42h. Justification of Likelihood & Consequence Levels:			
Mitigation Taken:			

Type of Mitigation:	☐ Procedural	☐ Physical	☐ Combination
Other Discussion:			

2-9: MADR MAP

Refer to Volume 1 for instructions on creating a MADR map. After the MADR map has been created, the applicant should review the Risk Items in item numbers 38-42 and change the value in the "MADR" column to "No" for each risk no longer in the mitigated ADR footprint.

The applicant, upon signing and submitting the application agrees and is committed to any identified mitigation measures. These measures will be inspected by the NRC.

NOTE: Items 43-45 should be answered for the MADR footprint or for the initial ADR footprint should there be no mitigating factors to reduce the ADR.

43. What is the estimated population density within the MADR (people/sq. mile)?

44. Is the population evenly distributed within the MADR?

45. If NO, describe population distribution. (For example, since the facility has a lake on the eastern side, most of the population is on the North, South and Western sides of the facility.)

2-10: TRAINING AND WEAPON MAINTENANCE

46. The applicant has a firing range on the facility property.
47. If yes, will training for this weapon be on the facility's range?

47a. Has the local Federal Aviation Administration (FAA) office been contacted to determine if special use airspace (SUA) needs to be established in the vicinity of the training range when enhanced weapons are in use?

47b. Summarize the results of discussions with FAA and include information for point of contact (i.e., name and telephone numbers)

48. Who uses the on-site firing range?
49. If the existing range will not support training for this weapon, or if there is no range, have arrangements been made to train with this weapon at another location?
50. What reference materials were used for modifying the existing training and weapon maintenance plans? (i.e., Military Standards, NRA documents, etc.)
51. If routine weapon maintenance and/or minor repair will not be done on site, describe needed inventory levels to continue normal operations and repair/maintenance shipping considerations.

2-11: RISK ACCEPTABILITY
52. The applicant has reviewed the risks associated with using this weapon and the selected ammunition(s). **The applicant finds the risks to be for this facility.**

If the applicant finds the risks associated with using this weapon system at the facility unacceptable, the NRC may not authorize the requested weapon system. Additional guidance is provided in Volume 1.

Summary of risk identification, evaluation, and mitigation	Risk
38. Chemical and Petroleum/Fuel risks in the IADR.	
39. Key Facilities/Areas Inside the PA	
40. Key Facilities/Areas Outside the PA but on the Facility's Property	
41. Key Facilities/Areas Outside the Property Boundaries (Refer to IADR Assessment)	
42. Critical Asset Items Outside the Property Boundaries (Refer to IADR Assessment)	