Phys 280 RE2v2 rubric: **Peer review submitted late: -5** **No hard copy submitted: -5** **No writer's memo: -10**
RE2v2 submitted late: -15 **No RE2v1 attached: -5**

Features:	**Description:**	**Range**:	**Comments on student paper for each feature (noting problems and strengths)**:
Coverage of issues and information	In making the case for funding the Manhattan Project, be sure to include the following technical content (not necessarily in this order): ● The definition of (a) a fissionable nuclide, (b) a fissile nuclide and (c) a fertile nuclide. In your explanation, list (d) an example of a fissile nuclide, (e) an example of a fissionable nuclide that is not fissile, and (f) an example of a fertile nuclide. ● The definition of (a) a nuclear-explosive nuclide and (b) a nuclear explosive material. Explain (c) whether or not all fissile nuclides are nuclear-explosive nuclides. Explain (d) why some nuclides that are not fissile are nevertheless nuclear-explosive. In your explanation, (e) list an example of an important nuclear-explosive nuclide that is not fissile. ● Explain in one or two paragraphs the basic, general requirements for achieving a nuclear explosion using nuclear explosive material. *Do not go into any of the details of particular weapon designs.* (⅓ of paper) ● Explain in (a) one paragraph why the energy released in a nuclear explosion is much greater than the energy released in the explosion of a conventional bomb and in (b) a separate paragraph the magnitude of energy release of a nuclear explosion when deployed strategically. Suggest a concrete scenario for the use of a nuclear weapon in the ongoing war effort (World War II).	25% **High** **Mid** **Low**	
Precise and accurate use of concepts	Accurate, clear definitions of: ● Fissile, fissionable and fertile ● NEM, NEN Accurate explanation of: ● Nuclear explosion using NEM ● Energy release greater than conventional bomb	20% **High** **Mid** **Low**	
Explanation & argument	● Do not forward personal opinion, but approach is persuasive ● Technical content is integrated into the persuasive case, suggested military application is realistic. ● Explanations use careful logic and evidence in reasoning about concepts and their applications	10% **High** **Mid** **Low**	

Professional style	Geared toward college-educated members of congress. Congruent with Congressional Research Service report style. Language (word choice, sentence structure, flow of information etc.) is precise and straightforward, attending to: Concision, Clarity, Brevity Professional tone Organization Comprehensive and thoughtful use of sources (need both NEM and Slides). - Source info clearly cited. - Uses a mixture of quotation, paraphrase, and summary.	20% **High** **Mid** **Low**	
Conformity to conventions	● 1 page, single spaced ● Title and section headings specified in prompt ● Header and date in correct format ● Page numbers ● 12-point Times New Roman font throughout, including page numbers (except if specified in prompt) ● 1.25" side margins and 1" top margins and .5" bottom margins. ● Citation practices specified in prompt. ● Key terms bolded in first use (√ = all correct, X = some mistakes (-10), XX = no conformity (-15)) **If you can't find the error, come to office hours!	15%	
Copy editing and use of standard language	Grammar and mechanics are edited for correctness and legibility.	10% **High** **Mid** **Low**	
Overall Comments:			