NSIR/NRR input:

NSIR concurs with NRR on its input below:

1. Recommend updating the **Summary** and the discussion under **Large Aircraft Crashes** to reflect the publication of the final rule on Power Reactor Security Requirements on March 27, 2009. (Nuclear Regulatory Commission, "Power Reactor Security Requirements, Final Rule," 74 *Federal Register* 13925, March 27, 2009.) The **Large Aircraft Crashes** section should include the wording of the rule (10 CFR 50.54(hh)(2)) as was done for the aircraft impact assessments:

> Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel
> pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas:
> (i) Fire fighting;
> (ii) Operations to mitigate fuel damage; and
> (iii) Actions to minimize radiological release.

This section should note that the requirements of 10 CFR 50.54(hh)(2) are not specifically linked to large aircraft crashes.

2. Recommend rewording the fifth paragraph of the **Summary** to specify that it was the Commission that voted to require the incorporation of design features and functional capabilities that avoid or mitigate, to the extent practical and with reduced reliance on operator actions, the effects of the aircraft impact on core cooling capability, containment integrity, spent fuel cooling capability, and spent fuel pool integrity.
3. Recommend rewording the sixth paragraph of the **Summary** to start "Because of the low probability of occurrence, NRC rejected proposals that existing reactors be backfit to protect against aircraft crashes…."
4. Recommend adding a sentence to the final paragraph of **Large Aircraft Crashes** as follows: "NRC conducted a series of independent assessments and analyses during the development of the strategies, with a final inspection completed in December, 2008 at all operating reactor sites to verify their implementation."
5. Correct the spelling of requirements in footnote 19.
6. Recommend adding a discussion to the **Spent Fuel Storage** section as part of or following the second paragraph addressing NRC analyses in response to the National Academy of Sciences report recommendation. The U.S. Nuclear Regulatory Commission Report To Congress On The National Academy Of Sciences Study On The Safety And Security Of Commercial Spent Nuclear Fuel Storage, dated March 2005, included the following comment in response to that recommendation: "The Commission views the results of security assessments … as clearly showing that storage of spent fuel in both SFP and in dry storage casks provides reasonable assurance that public health and safety, the environment, and the common defense and security will be adequately protected." The Report earlier stated that "[t]he NRC … disagrees with some NAS recommendations and its conclusion lacks a sound technical basis. The NAS finding that earlier movement of spent fuel from pools into dry storage would be prudent is one such example."

7. Recommend revising the order of the sections to move **Spent Fuel Storage** to immediately after **Large Aircraft Crashes** in order to allow a better linkage with the rule

discussed there requiring development and implementation of strategies for spent fuel pools. As currently written, this section leaves the NRC response to the risk to spent fuel pools in question. At a minimum, this section should include a statement that the new Rule, 10 CFR 50.54(hh)(2) addresses these threats to the spent fuel pools by requiring the development of and implementation of strategies intended to maintain or restore spent fuel pool cooling capabilities.

NSIR specific comments:

Design Basis Threat (page 2)

It is the federal government and military's responsibility to protect the nation against an aircraft attack. To that end, the NRC works closely with its federal partners to identify and implement enhanced security programs. Since 9/11, the issue of an airborne attack on this nation's infrastructure, including both operating and potential new nuclear power plants, has been widely discussed. The Commission maintains that protection against the threat could best be provided by the strengthening of airport and airline security measures. Ultimately, the Commission has determined that active protection against the airborne threat requires military weapons and ordnance that rightfully are the responsibilities of the Department of Defense (DoD), such as ground-based air defense missiles, and thus, the airborne threat is one that is beyond what a private security force can reasonably be expected to defend against.

Force-on-Force (Page 6)

To improve the force-on-force (FOF) inspection program, the NRC worked with the nuclear industry to develop a composite adversary force (CAF) that is trained to standards issued by the Commission. The CAF has been used for all FOF exercises conducted after October 2004. The CAF has been a significant improvement in ability, consistency, and effectiveness over the previous adversary forces. The CAF is evaluated at each exercise using rigorous NRC performance standards issued in April 2004. The CAF used for all NRC FOF inspections is made up of security officers from various nuclear power plants. The CAF is managed by Wackenhut, but CAF members include both Wackenhut and non-Wackenhut employees. Individuals are typically assigned to the CAF for 18-24 months. The CAF is trained to meet performance standards established by the NRC. The NRC, not the CAF, designs, runs, and evaluates the licensee's performance in the FOF exercises. Because the CAF does not establish the exercise objectives, boundaries, or timelines, and because the adversary force's performance is subject to continual observation by NRC and its active duty Special Operations Force military contractors, the agency controls the exercise. In order to ensure that there is no conflict of interest with members of the CAF, the NRC ensured that Wackenhut had established a clear separation of functions between the CAF and plant security forces to ensure an independent, reliable, and credible mock adversary force. In addition, no member of the CAF may participate in an exercise at his or her home site. The CAF has consistently met all performance standards set by the NRC, however, should industry be unable to maintain an adequate and objective CAF that meets the standards mandated by the NRC, the NRC will take the necessary actions to ensure the effectiveness of the FOF evaluation program.

Emergency Response (page 7)

1. NRC requires that within the 10 miles EPZ, the plant operator must maintain "alert and notification systems" – these may be or may include siren systems but can be other methods- some of the NPPs in very rural areas use tone alert radios and do not have siren systems.
2. The exercises are "evaluated" not monitored.
3. Regarding radioactive iodine; an important lesson learned from the accident at the Three Mile Island Unit 2 facility was the absence of iodine in the radioactive effluent. It is highly unlikely for an American style reactor to have significant release of radioactive iodine as a result of a likely (10^{-7}) event.
4. The NRC rule change regarding potassium iodide was published Jan 19, 2001 and the program was officially kicked off, after the FDA had updated its guidelines, in Dec 2001. The actual distribution of tablets began in 2002.

Spent Fuel Storage (page 8)

Suggest to use the following text to better reflect the current information:

NRC has contended that the potential effects of terrorist attacks are not proximately caused by the issuance of a facility license and therefore are not "reasonably foreseeable" impacts within the meaning of the National Environmental Policy Act as a matter of law. However, the U.S. Court of Appeals for the Ninth Circuit (headquartered in San Francisco and covering California and other Western states) ruled in June 2006 that the potential impacts of a possible terrorist attack must be included in the environmental review of an Independent Spent Fuel Storage Facility (ISFSI) at California's Diablo Canyon nuclear plant. The Commission has stated that it will follow the Ninth Circuit's decision when issuing licenses for facilities located within the states that comprise the Ninth Circuit, but will continue to maintain the prior position in the rest of the country. The U.S. Court of Appeals for the Third Circuit (headquartered in Philadelphia and covering Pennsylvania, Delaware and New Jersey) has now ruled that NRC does not have to consider the potential impacts of a terrorist attack when considering the license renewal request for the Oyster Creek facility in New Jersey. Other cases with the same or similar issue are now pending before the Commission.

Security Personnel and Other Issues (page 9)

1. The bullet on Cyber Security states that the plans prevent cyber attacks and is technically not correct. Suggest the following revision: Nuclear plants must submit security plans that describe how digital computer, communications systems, and networks for safety, security, and emergency preparedness functions are protected from cyber attacks.