

Moving a high security prison population is problematic

An evacuation of Sing Sing would entail significant problems beyond the scope of the evacuation of the general population. Inmates from Sing Sing would only be moved under controlled and secure conditions. Buses and guards would be required. Encounter of congestion and delay would be viewed as a security issue and security in route would be viewed as a paramount concern. And destination(s) would have to be carefully arranged, avoiding the many pitfalls found with the evacuation of OPP inmates, creating complications of last minute planning and dispersal of inmates to different facilities.

In that case, what kinds of impact would prisoners expect during the resulting transitions? Again, the Katrina case described above is enlightening as to the general issues. Suggested is that it would take emergency personnel beyond officers on hand to mobilize and move so large a cohort of high security prisoners. The Witt report suggests that State Police from New York and New Jersey would be involved. These forces would have to be pulled off other duties at a time of crises and sent into a presumable danger zone. The inmates interviewed indicated that they would likely have to be chained and secured to be moved, a time consuming and clumsy operation to carry out under duress. Sufficient vehicles, catalogued by Witt, would have to be dedicated for the evacuation, which means they would have to be withheld from other emergency services. Drivers would be required even though Witt acknowledges that they might be in short supply.

Then there is uncertainty for the reassigned evacuees about being the new inmate "in town." Witt reports a vague plan to reassign inmates at the point that their relocation from Sing Sing becomes necessary. Assuming that such an analysis of beds and prisoner characteristics for matching to an appropriate placement were possible on short notice under crisis conditions, implied is that Sing Sing prisoners would have to be sorted by destination, either before leaving Sing Sing or at an intermediary evacuation point that is apparently not pre-designated. The integration of inmates into new settings may go smoother than at Katrina if, in fact, computer matching is carried out and if there is not a wholesale dumping of prisoners into another location overwhelmed by the same crisis, as occurred in Louisiana. Such a process might prevent racial or other problems with the integration into a new setting. There may be conflictive issues, however, stemming from gang or other allegiances that might not be anticipated in the computer matching process. On the other hand, they will have the added burden of environmental stigma. Sing Sing prisoners might be stigmatized as radioactive beyond any other stigma issues that might arise.

Summary for Evacuation

Without diminishing the challenges faced by others attempting to evacuate under conditions that Witt predicts to be difficult and ineffective, it can be concluded that evacuation during a radiological event at Indian Point represents the potential for a large number of significant adverse impacts to the EJ prisoner population that are different from and disproportionately more severe than those faced by others. Prisoners will potentially remain longest in an environment perceived as radioactive and possibly truly so. They are totally dependent on others to move

them and to decide the timing, destination and route. And, absent a plan for such an evacuation, expectations for problems with the larger evacuation of non-institutionalized people at risk and the unique challenges of moving a high security inmate population, evacuation can hardly be seen as an adequate mitigative strategy to protect this EJ population.

5. Proposals to strengthen mitigation

Given the above analysis, are there meaningful things that can be said about mitigation that would assure the protection of the inmate population at Sing Sing during an Indian Point emergency?

Improving the Protectiveness of Shelter-in-place

In order to justify employing the strategy of shelter-in-place, a complete energy and infiltration audit must be made of the entire prison complex. Using this audit, corrections and modifications must be made to assure that entry points are controlled. Even a tight building can have technical systems overcome by human behavior. Superb training standards are required to assure that systems are operated properly and not defeated by mistakes, such as allowing windows to remain ajar.

Due consideration must be given to whether and for how long Sing Sing can operate without fresh makeup air. Will it be known if the shell is breached during an emergency? How uninhabitable will Sing Sing become under no-ventilation conditions and how fast? What might be done to maintain habitability so as to keep prisoners from challenging conditions? These and other questions must be addressed, ideally with the participation of inmates.

Improving the Protectiveness of Evacuation

Given the lack of any intention to evacuate Sing Sing inmates, it may be odd to ask for a plan to do so. Nevertheless, should conditions deteriorate sufficiently due either to excessive release of radioactive air or because shelter-in-place cannot be sustained, the eventuality of evacuating Sing Sing may arise.

Plan Evacuation

Even if evacuation is not the first choice, better evacuation planning is required if Sing Sing inmates are not to be placed at risk and subjected to undue stress in a manner parallel to that seen at OPP in New Orleans. The "plan" to figure out transport and where individual Sing Sing prisoners might ideally be transferred to in the midst of a radiological emergency is imprudent. Instead, a serious designation should be made for an evacuation site for Sing Sing inmates that would be able to take all the prisoners on short notice in order to remove them from harm's way. The plan should include suitable quarters, supply and control in order to avoid the transitional problems seen in Louisiana. Once at the temporary site, there is time to plan and arrange appropriate transfers to a permanent location.

Carry Out a Test Evacuation

Given its unique vulnerability, Sing Sing should be included in emergency response preparedness exercises and this should be a condition of any Entergy permit.

Robbins writing of a survey evaluation of emergency response plans for prisons, stresses the requirement that actual evacuations be conducted.^{lxxxiv}

It is not until a real evacuation is conducted that prison administrators can discover problems with plans that otherwise exist only on paper. While the safety risks are undoubtedly significant in high-security areas, these risks can be abated by using extra staff or engaging in additional planning.

A test evacuation of Sing Sing for a radiological event would demonstrate whether or not it was feasible and allow for correction. The practice effect would be helpful for guards and prisoners alike with regard to preparing for an actual event. Of course a test evacuation of just Sing Sing would miss the complications predicted by Witt associated with a general large scale evacuation.

Other Forms of Mitigation

Having identified potential impacts, other mitigations come to mind that may assuage potential harm?

Improve Emergency Response

A mitigation checklist proposed by ACLU in its analysis of Katrina is relevant here. I have appended this list (Appendix 1), modifying flood related questions to anticipate a nuclear event at Indian Point. Using a checklist such as this as the basis for independent monitoring of emergency response preparation would offer some additional protection to prisoners.^{lxxxv}

Better Inform and Involve Inmates and Reassure Them Realistically

As was noted during my conversation with Sing Sing prisoners, if the population is informed of the threat and how the prison plans to deal with an emergency, there is a greater likelihood prisoners will cooperate if the worst occurs. Of course, informing the population invites worry. But building a reservoir of trust will help if demanded under crisis. If prisoners, for example, know that there is KI on hand and what procedures will be used to dispense it, it will help avoid a divisive issue later on. Also, as seen from the brief conversation with prisoners, those inside Sing Sing know the prison well, including its assets and its vulnerabilities. Engaging interested members of the community may lead to insights that will make it more protective.

Add Vulnerable Person Coordinators

Hoffman advocates for the creation of independent "VPC"s (vulnerable person coordinators) to independently work with disadvantaged groups. If a VPC was created at Sing Sing, it would represent an independent group concerned only with the wellbeing of prisoners in instances of high vulnerability.^{lxxxvi}

The vulnerable populations for which VPCs are responsible should include prisoners. The VPCs should oversee efforts to develop plans for the efficient and safe evacuation of prisons and jails, ensuring that prison authorities conduct disaster drills, coordinate across departmental lines, and have designated facilities that can receive evacuees who are inmates.

With a VPC managing the implementation of emergency response, some potential problems with evacuation might be avoided.

Close Sing Sing

One option would be to close Sing Sing, a move that a small group of residents of Ossining are reported to favor. However, despite a current effort to reduce the number of prison beds, Sing Sing fulfills an important role as a maximum security facility. It is also one of the few state prisons close to the New York Metropolitan area, where many prisoner's families live.^{lxxxvii} And, there would be numerous impacts associated with the closing to be examined.

Improve Disaster Preparedness

Although the Witt report implied that large stockpiles of food were on hand at Sing Sing, there is a need to review how the prison would fare were a prolonged shelter-in-place be required. Are non-perishable foods stored in sufficient quantities should resupply be interrupted? Likewise, bottled water and other consumables need to be kept on hand in large quantity without becoming out-of-date. Former Westchester County Executive Al DelBello's staff predicted that Ossining, and thus Sing Sing, would face severe water restrictions during an Indian Point event. This potential increases the chance that prisoners will face privation during their shelter-in-place experience.^{lxxxviii} There needs to be a clear description of how Sing Sing would maintain its readiness to feed inmates and guests on hand during a worst case scenario event. As noted, OPP made assumptions about the adequacy of their food planning that failed in practice during the emergency.

Provide Dosimetry

During an emergency at Indian Point, on site monitoring of dose is important as a check to the conventional approach of sampling and modeling during a disaster. There is a clear need for radiation detectors combined with staff training in how to use them. During an emergency, officers and inmates will both want information as to their exposure and to understand where

contamination has occurred within the complex. It will be necessary to give reassurances. However, if such information is to be trusted, it has to be presented in as transparent a manner as possible and inmates need to be trained to use the equipment, replicating results during a disaster. Such feedback may allow for additional protective steps, signal when iodine pills should be distributed and alert officers that an evacuation is necessary.

Communications

The Katrina debacle illustrates the dangers of failing to maintain adequate communication and information sharing with the inmate population. At Sing Sing, a dedicated staff member for each shift should be assigned to become expert on the issues of an Indian Point emergency and attend all meetings and exercises, developing relationships with key sources. During an emergency, these connections can be used to stay informed. Information should be shared directly with patients in order to establish trust and to reduce the effect of rumors spreading.

Another communications issue is that, given the demographic connection of the Sing Sing inmate population to New York City, it should be expected that many inmates will be deeply concerned about the fate of people on the outside. During Katrina, OPP inmates were cut off from their families as phone service failed. This isolation proved to be a special source of stress for the inmate population. Special means should be developed to allow inmates to stay in touch with loved ones during an Indian Point emergency.

Training

There should be a dedicated training program for Sing Sing staff and inmates in order to prepare them for roles to be played during an Indian Point emergency. Such training will diminish the risk of misunderstandings during an event and increase the effectiveness of meeting inmate needs.

Conclusion to Mitigation Review

It is useful to return to the meaning of mitigation. Writing after the Bhopal accident, a social scientist named Bogard profoundly discussed the distorted sense of security offered by the concept of mitigation.^{lxxxix} It is easy to see the mitigation as removing the threat it is meant to address. But in reality, the mitigation is merely a restatement of that impact. Should the mitigation fail or not be in place, then the impact occurs. And mitigations also have impacts themselves. A band aid is only as effective as the tape that holds it on. And if it is on too tight, it hurts to pull it off.

We see this problem with the concepts proposed here, but also with the broader reliance on an emergency response plan where the presumption that shelter in place and evacuation will be protective in the wake of a disaster at Indian Point becomes the basis for approving a facility with known and considerable disaster potential. From the perspectives of mitigation, neither

shelter nor evacuation can be counted upon to be protective of Sing Sing prisoners; both protective strategies carry their own significant adverse secondary impacts.

No Action

Should no action be taken and the licenses not be renewed, it may be the case that significant potential for radioactive release will remain on the Indian Point site so long as the reactors have not been fully decommissioned and so long as radioactive wastes are stored on site. However, the likelihood of such events will exist whether or not the license is granted. The continued operations of the plant will add to the risk-life for Sing Sing prisoners by keeping the plant open another twenty years and generating additional high level nuclear wastes for which there is no anticipated off-site storage available. Thus, no action offers a greater likelihood of avoiding the impacts discussed in this report.

Conclusion

It is highly likely that prisoners at Sing Sing will be disproportionately impacted should a radioactive release occur at Indian Point for two main reasons. First, the prison will not be evacuated at the same time as the general population, if at all. Second, the impacts will likely be above and beyond the effects of whatever exposure of prisoners to radioactivity occurs. The very acts of shelter and evacuation will cause significant adverse effects for Sing Sing inmates. These impacts are different and potentially more severe than those suffered by others. Given that the inmate population of Sing Sing meets EJ criteria, it is my opinion that there is a significant potential for differential adverse effect on an EJ population from the relicensing of Indian Point that needs to be analyzed and mitigated to the degree possible. Under the definitions employed by the federal government, such adverse impacts would constitute an environmental injustice.

Appendix I:

Mitigations Proposed by ACLU in Response to its Analysis of OPP during the Katrina Disaster

ACLU generated a checklist for the ERP to test its mitigatory potential. This list has been modified for applicability to IP by this author.

EMERGENCY GENERATORS

- Is there an emergency generator?
- Is the emergency generator adequate to run critical areas of the institution and critical equipment safely for 24 hrs?
- Are staff trained to know which systems will be run on emergency power and which will be inoperable during a main power outage?
- Do all emergency generators have sufficient fuel to run for a minimum of 72 hours continuously?
- If the emergency generators must be started manually in the event of a main power outage, are there staff on duty on a 24-hour basis who are trained to start and operate those generators?
 - Is there a means of supplying fresh makeup air without drawing on external sources that are potentially contaminated?

OFFSITE EVACUATIONS

- Is there an offsite evacuation plan?

If yes, does the offsite evacuation plan include the following:

- Potential destinations?
- Specific dedicated transportation alternatives?
- Security procedures during evacuation?
- Which inmate records must be moved with inmates?
- Procedures for providing medical services during and after the evacuation?
- Provisions for coordinating with local and state police during the evacuation?
- Arrangements for meal services at the new location?

- Arrangements for inmate identification and count at the new location?
- Arrangements for housing and security at the new location?
- Predetermined evacuation routes?
- Procedures for protection or destruction of confidential records that cannot be evacuated?

MEDICAL SERVICES

- Is there a comprehensive medical plan for an institutional emergency?
- Does the plan include mass casualties/triage?
- Are staff trained in blood-borne pathogen precautions?
- Is a location other than the infirmary identified for mass casualties/triage?
- Does the institution have an emergency-equipped medical crash cart?
- Are there adequate numbers of gurneys?
- Are backup medical resources for emergencies identified in the community?
 - Are iodine pills and any other medical needs relevant to addressing radioactive exposure available and up-to-date?
 - Are protective clothing and breathing apparatus available for staff and the inmate population if needed?
 - Are shower facilities and other decontamination measures available even during a nuclear emergency where water supplies and power might be disrupted and is there an organization plan to deploy them?
 - Is appropriate dosimetry available so that exposure in the institution can be measured individually and environmentally (in air, water and food)?

GENERAL CONSIDERATIONS

- Does the institution have policies in place specific to nuclear disaster planning, response, and recovery operations?
- Does the institution conduct routine training in nuclear disaster response, including drills and exercises?

- Does the institution have current mutual aid agreements with outside agencies to coordinate response activities during a nuclear disaster?
- Does the institution have emergency response plans and checklists specific to nuclear disaster response?
- Has the institution identified supplies and equipment that may be needed in a nuclear disaster (water, tents, portable toilets, portable lighting, blankets, etc.)?
- Does the institution have evacuation and relocation plans, alternative sites selected, and arrangements and agreements for natural disasters?
- Does the institution have a plan to operate the institution with reduced staffing levels should a nuclear disaster make that necessary?
- Does the institution have an emergency staff services (ESS) program to respond to staff and staff family needs in the event of a nuclear disaster?
- Has the institution planned for 'desert island operations' (operating for an extended period without contact or assistance from outside) in the event of a nuclear disaster?
- Is the institution prepared to maintain security and essential services, in the event of loss of power or other utilities, for as long as 72 hours?
- Does the institution have a 3-day supply of potable water onsite or an alternate water supply system?
- Does the institution have a 3-day supply of food that would not need cooking and that would not spoil?
- Does the institution have a 3-day supply of medications for inmates onsite?
- Do staff and inmates participate in nuclear event disaster drills?

NUCLEAR DISASTERS (note this is an added section).

- Has the institution conducted a thorough risk assessment of vulnerable areas and equipment in the event of a nuclear accident?
- Does the institution have detailed plans for a complete offsite evacuation in the event of a nuclear accident?
- Have those offsite evacuation plans been reviewed carefully within the past 12 months?
- Has the institution practiced or drilled with a nuclear disaster offsite evacuation scenario within the past 24 months, at the level of table-top exercise or above?

- Is Sing Sing's nuclear accident response plan developed in stages, so it could be enacted in response to predetermined stages or severity of warning?
- Do Sing Sing's nuclear accident response plans include an analysis of which access and egress routes would be rendered unusable at various points in a nuclear accident where the entire metropolitan population might be mobile?
- Is there a plan for managing the inmate population during a nuclear event either locked down in place or in transit during evacuation and after reaching a destination?
- Have staff received any training specifically on preparing for and responding to a range of possible nuclear disaster scenarios within the last 24 months?
- Do the institution's nuclear accident response plans include an assessment of potential for isolating a sheltered inmate population and staff from radionuclides entering through open or broken windows and doors or drawn in through the HVAC system or entering in some other manner?
- Do the institution's nuclear accident response plans include an assessment of the vulnerability of various utilities?
- Do the institution's nuclear accident response plans include an assessment of potential for isolating a sheltered inmate population and staff from radioactive smoke resulting from a fire at the Indian Point complex? ^{xc}

Appendix 2:

Health Department IP3.0^{xci}

Attachment 6: Sheltering-in-Place Guidelines

The Sheltering-in-place Option gives the County the capability to implement an effective protective action for the general public in the event of a puff-type radiological release incident at the Indian Point Energy Center (IPEC) In addition, for those situations requiring evacuation and where evacuation cannot be implemented because of time constraints and/or impediments to highway movement, Sheltering-in-place may be implemented in lieu of evacuation.

If Sheltering-in-place is implemented, the general public and special facility administrators should be informed of the following:

1. Remain indoors and close all windows and doors.
2. Turn off all fans, air conditioning equipment and other sources of outside air.
3. Close blinds and drapes.
4. Extinguish fires in fireplaces and close flues.
5. **Keep listening to the TV and radio.** For heightened awareness of a radiological emergency and for possible protective actions announced via the Emergency Alert System.

Sheltering-in-place may be preferable to evacuation as a protective action in some situations. Because of the higher risk associated with evacuation of some special groups in the population (e.g., those who are not readily mobile), sheltering-in-place may be the preferred alternative for such groups as a protective action at projected doses up to 5 rem. In addition, under unusually hazardous environmental conditions use of sheltering-in-place at projected doses up to 5 rem to the general population (and up to 10 rem to special groups) may become justified. Sheltering-in-place may also provide protection equal to or greater than evacuation due to the nature of the source term and/or the presence of temporal or other site-specific conditions. Illustrative examples of situations or groups for which evacuation may not be appropriate at 1 rem include: a) the presence of severe weather, b) competing disasters, c) institutionalized persons who are not readily mobile, and d) local physical factors which impede evacuation.

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^{iv} 62642 Federal Register / Vol. 68, No. 214 / Wednesday, November 5, 2003 / Notices. Retrieved from <http://edocket.access.gpo.gov/2003/pdf/03-27805.pdf>.

^v Nuclear Regulatory Commission. Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Action. <http://www.nrc.gov/reading-rm/doc-collections/commission/policy/69fr52040.pdf>

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^{viii} Hudson River Sloop Clearwater Inc. 2007. Petition to Intervene and Request for Hearing Before the Atomic Safety and Licensing Board in the Matter of Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3). December 10, 2007, p. 31.

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^{xxiii} *ibid*, p 52.

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This report is based on a review of documents listed in the bibliography, my personal observation and knowledge and my expertise. It is true and correct to a reasonable degree of scientific certainty.

Submitted in final form November 6, 2011 by the author


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11/6/2011