

**USAEC ECP Review Comments
Phase I Draft ECP Review
For Fort Monmouth**

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Cabrera Report				Joan Jackson	Restoration Manager, USAEC			
1		General comment		Joan Jackson	Restoration Manager, USAEC	None of the AEHA/USACHPPM references provided by USAEC were included in the document. Need to include all these references for completeness.	Cabrera	All documents were reviewed, but only select ones were found to be relevant and cited. CHPPM citations listed in the reference section will be changed to reflect their source.
2		Acronym List		Joan Jackson	Restoration Manager, USAEC	Add after USAEHA - Army Environmental Hygiene Agency (now USACHPPM) and do the reverse for USACHPPM (formerly USAEHA)	Cabrera	The affected text will be revised as noted.
3		Acronym list		Joan Jackson	Restoration Manager, USAEC	Need to ensure "U.S. Army" precedes CECOM, CELCMC, etc. in the definitions; currently is inconsistent among various acronyms	Cabrera	The affected text will be revised as noted.
4	1-3			Joan Jackson	Restoration Manager, USAEC	Areas where radiation/X-Ray producing equipment were used are not identified in the text. Please add a section to address the dental clinics, veterinary clinic, 2700 area, etc.	Cabrera	X-ray machines (and similar) will be addressed in Section 4.1.
5	2-1			Joan Jackson	Restoration Manager, USAEC	Need to add AMC guidance to introductory section and throughout as appropriate	Cabrera	The affected text will be revised as noted.
6	2-3	Step 7		Joan Jackson	Restoration Manager, USAEC	Same comment as comment #1 above - there were extensive reports from USACHPPM/USAEHA provided that need to be recognized as part of the review process. Pages 4-2 and 4-4 later in the text mention the reports but they need to be highlighted prominently in the early sections as they represent the primary historical records for the areas from the 1940's through the 1990's.	Cabrera	The affected text will be revised as noted.
7	3-1	3.0	3	Joan Jackson	Restoration Manager, USAEC	I believe the reference should be 025 not 097.	Cabrera	The affected text will be corrected as noted.
8	3-1		last line	Joan Jackson	Restoration Manager, USAEC	Separate Historical Site Assessment efforts were made for Evans Area and this should be clearly noted in this section, along with the reference for that document which is available from the Evans BEC.	Cabrera	Acknowledged, statement will be made referencing Evans Area HSA. The document will be reviewed and incorporated as appropriate.
9	4-1	4.1	1	Joan Jackson	Restoration Manager, USAEC	I am not sure the effort is to terminate the NRC licenses - it may be to transfer them. Need to contact Barry Silber for clarification.	Cabrera	Acknowledged, statement will be changed to "modify."
10	4-3	Decision tree		Joan Jackson	Restoration Manager, USAEC	I am confused by the 2nd block from the top, on the right side of the tree. It is unclear to me how this block could occur if there was no use, storage, or transport of radioactive or hazardous material.	Cabrera	Acknowledged, figure will be corrected.
11	4-4	4.2.1	para 3	Joan Jackson	Restoration Manager, USAEC	Clarify the time frames for the CHPPM references - i.e. Primarily 1970's through the 1990's.	Cabrera	Acknowledged, time frame will be clarified in the sentence.
12	4-4	4.2.4		Joan Jackson	Restoration Manager, USAEC	Was the Adelphi, MD ARL office contacted for information as suggested by USAEC during montly progress calls? If so, need to include.	Cabrera	Mike Borisky from ARL Adelphi was contacted on 7/13/06. He was interviewed, but had no additional information.

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13	4-5	4.4		Joan Jackson	Restoration Manager, USAEC	The interview table is inconsistently developed - some folks have building numbers and positions. Need to ensure information is completed for all names. I did not see Dave Alberth or Chuck Appleby listed - they should have been contacted and there are no interviewees listed for either the dental clinics or the veterinary clinic. Need to include these folks in interview list and next version of report.	Cabrera	Dave Alberth provided radiological input through an initial report and telephone discussions pertaining to all installations under investigation. Cabrera made numerous attempts to contact Chuck Appleby for interview; however, due to his no longer being involved in the BRAC process, he declined our request. Cabrera heard no mention of a veterinary clinic during any interview, and the information will be changed to reflect that. The X-ray Clinic Radiological Technologist (Shirley Glory) and long time nurse (Parrish) were contacted. No use of radioactive materials was ever mentioned, except by Nurse Parrish (I-125). No one else at the dental/veterinary clinics were contacted because their radiological activities were/are limited to x-ray machines, which are not areas of concern in the context of MARSSIM/HSA (see section 4.1).
14	5-1		5	Joan Jackson	Restoration Manager, USAEC	change "is" to "was"	Cabrera	The affected text will be corrected as noted.
15	5-1		para 5 and throughout	Joan Jackson	Restoration Manager, USAEC	Note that the BRAC round is not 1995 but is 1993 for the Evans Area	Cabrera	The affected text will be corrected as noted.
16	5-2	Table 5-1		Joan Jackson	Restoration Manager, USAEC	same comment as above	Cabrera	The affected text will be corrected as noted.
17	5-3	5.2.2		Joan Jackson	Restoration Manager, USAEC	Why are there no expiration dates listed for the licenses?	Cabrera	The affected text will be revised as noted (expiration dates included).
18	5-3		line 1	Joan Jackson	Restoration Manager, USAEC	Note that the BRAC round is not 1995 but is 1993 for the Evans Area	Cabrera	The affected text will be corrected as noted.
19	5-3		para 1	Joan Jackson	Restoration Manager, USAEC	stray comma - change to Building 2539	Cabrera	The affected text will be corrected as noted.
20	6-5	Figure 6-1		Joan Jackson	Restoration Manager, USAEC	change "Fort Gillem" to "Fort Monmouth"	Cabrera	The affected text will be corrected as noted.
21	6-6	Figure 6-2		Joan Jackson	Restoration Manager, USAEC	Add "Area" after "Charles Wood"	Cabrera	Acknowledged, figure will be corrected.
22	6-8		bullet 3	Joan Jackson	Restoration Manager, USAEC	USDOA should be spelled out as it is not an official Army acronym	Cabrera	The affected text will be corrected as noted.
23	6-8		bullet 7	Joan Jackson	Restoration Manager, USAEC	This reference is unclear - need to spell out	Cabrera	Acknowledged, reference will be corrected.
24	6-8			Joan Jackson	Restoration Manager, USAEC	add a bullet to include the AMC guidance	Cabrera	Acknowledged.
25	7-2		Myers Center	Joan Jackson	Restoration Manager, USAEC	Need to add specific rooms/floors/labs that had the "wet sinks"	Cabrera	Acknowledged, Table 7-1 will be revised to add room numbers of the two wet labs that still exist (this will also be noted in the Building Fact Sheet).
26	8-2	reference 29		Joan Jackson	Restoration Manager, USAEC	Need more detail on this reference - which organization generated the report and a report number	Cabrera	The affected text will be corrected as noted.
27	8-2	reference 30		Joan Jackson	Restoration Manager, USAEC	This appears to be one of the archival USACHPPM reports and if so, needs to have the additional details of organization, report number and dates of study	Cabrera	Correct. The affected text will be corrected as noted.

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28		reference 031 and 032		Joan Jackson	Restoration Manager, USAEC	Cabrera was contracted to review the references provided by USAEC. While USAEC developed the references mentioned as an aid to USAEC, it was expected that Cabrera would develop a similar product after having a certified health physicist review the documents provided. Cabrera cannot use these references in this report without understanding that a CSP, not a CHP, developed these tables and that the professional expertise of the CHP needs to be used to ensure the documents reviewed and captured in the spreadsheets were complete for Cabrera's purposes.	Cabrera	Before the site visit, all documents were reviewed by several team members, including a CHPs and degreed HPs. There was no indication of any reason to discount these references, which were used, along with other documents, to help determine which buildings should be visited while at Fort Monmouth. Additional and specific information regarding each building was either obtained through the CHPPM document review or during the site visit itself. Mention of these references will be deleted in the text of the report.
29		reference 035		Joan Jackson	Restoration Manager, USAEC	This appears to be one of the archival USACHPPM reports and if so, needs to have the additional details of organization, report number and dates of study	Cabrera	Acknowledged, document name will be revised to include details.
30		reference 036		Joan Jackson	Restoration Manager, USAEC	USAEC would like a copy of this report if it was not one of the archival records provided; if so, need more detail on the reference.	Cabrera	This is one of the archival reports provided; document name will be revised to include details.
31		reference 071		Joan Jackson	Restoration Manager, USAEC	Need to use 2004 AMC guidance per previous comments	Cabrera	The affected text will be corrected as noted.
32		reference 074		Joan Jackson	Restoration Manager, USAEC	Need to indicate organization for Mike Borisky	Cabrera	The affected text will be corrected as noted.
33		General comment		Joan Jackson	Restoration Manager, USAEC	is this reference list complete? On page 3-1 there was a reference to 097 which is not included in this table. Need to make sure all USACHPPM/AEHA reports are in the reference list.	Cabrera	Reference list is complete. Page 3-1 contained a reference error which will be corrected.
34		General comment		Joan Jackson	Restoration Manager, USAEC	Reference 038 is the scope of work. This is really poor to use a SOW as a reference. Cabrera was expected to do enough research that original source documents would be the only references. Delete this reference throughout the document.	Cabrera	This reference was intended to refer to summary reports prepared by Mr. Alberth and provided to Cabrera as attachments to our SOW. We consider Mr. Alberth's information to be as original a source as an interview or similar reference. Mr. Alberth is known to Cabrera and we considered these data reliable for use in guiding our further inquiry at all installations. Propose that reference be corrected to clarify, but not deleted.
35		Building 205 Fact sheet		Joan Jackson	Restoration Manager, USAEC	4 floors are indicated but only 3 are shown on the floor plan; None is listed for representative photographs, etc. yet there is a floor plan so need to so indicate.	Cabrera	According to an engineer in the DPW planning office, the fourth floor is an attic storage area and cannot be used as "occupied" space. The Building Fact Sheet will be revised accordingly.
36		Bldg 275 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Same concern as above with use of SOW as reference.	Cabrera	Acknowledged, See response to 37 above.
37		Building 283 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	List the years the renovations affected interior spaces under the construction information section.	Cabrera	Laurie Martinez in planning office was asked for information, but she stated that she does not have time to look for anything more regarding the renovation years. Jim Dempsey, who works in this building, can only tell me that renovations occurred within last 20 years (how long he has been in the building), but no more detail than that. This information will be added to the fact sheet.
38		Building 292 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Same concern as above with use of SOW as reference.	Cabrera	Acknowledged, See response to 37 above.
39				Joan Jackson	Restoration Manager, USAEC	Add (Museum Storage Area) after Building #292 on 1st line	Cabrera	Acknowledged, the affected text will be revised accordingly.

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40		Building 451 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Add (Post Office) after Building #451 on 1st line	Cabrera	Acknowledged, the affected text will be revised accordingly.
41		Building 602 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Refrain from mentioning that this is a Top Secret lab - this does not add value to the report and may be a security concern by being mentioned in an open source report	Cabrera	Acknowledged, the affected text will be revised accordingly.
42		Building 1075 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Overall I was disappointed in the level of information provided by Cabrera. There was a significant volume of information in the archival USAEHA/USACHPPM reports that involved this facility and the impacts from medical and dental operations. Cabrera needs to go back and review the reports mentioned in the draft USAEC ECP and do their own analysis of impacted areas. At a minimum a mention should be made of the rooms used as well as use of the many diagrams in those reports that outlined where the equipment was stored, types, etc.	Cabrera	Information relevant to Building 1075 was extensively reviewed, including interviews with supervisory staff and long-term nursing staff. Most CHPPM documents refer to maintenance surveys for x-ray equipment. The extensive use of x-ray equipment does not constitute radioactive material (refer to x-ray discussion in section 4.1). The only isotope identified has been I-125. Due to the short half life of this isotope (60 days) and non-radioactive progeny (Te-125), it is not presently a concern. Interviews were provided with numerous workers concerning this building. In addition, except for Nurse Parrish's comments on I-125, no other radioactive material is mentioned. None of the USAEHA/USACHPPM reports indicate the use of radioactive materials. These reports discuss X-ray safety and routine calibration, shielding of these rooms, beam quality, etc., none of which are relevant in the context of MARSSIM and this HSA (See Section 4.1, paragraphs 2 and 3).
43				Joan Jackson	Restoration Manager, USAEC	Document review list needs to be updated after a thorough review is done of the medical radiological records provided	Cabrera	Please see Section 4.1 paragraphs 2 and 3 discussing X-ray generating equipment and why areas/rooms containing such equipment do not require additional review or surveys.
44				Joan Jackson	Restoration Manager, USAEC	The last paragraph mentions an interview with Crystal Parrish but no official interview form was found in the interview section. Need to add the sheet with the information to final report.	Cabrera	Ms. Parrish was not formally interviewed, because all information that she was familiar with was provided by her responses. However, an interview form will be completed as requested.
45				Joan Jackson	Restoration Manager, USAEC	Same concern as above with use of SOW as reference.	Cabrera	Acknowledged, See response to 37 above.
46		Building 1075 photo entitled Possible location of former incinerator		Joan Jackson	Restoration Manager, USAEC	Cabrera and Shaw need to discuss the incinerator and Cabrera should revise their write-up to match that of Shaw.	Cabrera	The section of Shaw's ECP was reviewed and information was included in the Fact Sheet to match the write-up provided by Shaw.
47		Building 1075 Floor Plan		Joan Jackson	Restoration Manager, USAEC	This is inadequate. Need to use floor plans, etc in archival reports in addition to this. Also need to indicate general areas so this makes some sense.	Cabrera	More extensive floor plans have been obtained and will be included with the report.
48		Building 2540 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Same concern as above with use of SOW as reference.	Cabrera	Acknowledged, See response to 37 above.
49		Buildings 2560 and 2628 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Rad Data Summary does not indicate if the reason the 3 Radiac meters were retrieved is for the same reason as mentioned in previous write-ups, i.e. no longer a response mission. If this is the case, need to so indicate in the write-up for completeness.	Cabrera	Meters were moved around to different locations because they were needed by others. These types of instruments are regulated under the NRC Licenses and must be maintained and accounted for by the license-holders, in this case, CECOM. This information will be included in Building Fact Sheets to clarify why they were removed.

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50		Building 2700 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	Same concern as above with PAHC. Extensive radiological and other reports were made available to Cabrera along with an analysis done by USAEC. While USAEC has no reason to believe the spreadsheets are not accurate, they were not pulled together by a CHP and Cabrera was expected to review all the reports and verify the spreadsheets and write-ups were complete from a radiological professional standpoint.	Cabrera	Before the site visit, all documents were reviewed by several team members, including a CHP and HP. There was no indication of any reason to discount these references, which were used, along with other documents, to help determine which buildings should be visited while at Fort Monmouth. Additional and specific information regarding each building was either obtained through the CHPPM document review or during the site visit itself.
51				Joan Jackson	Restoration Manager, USAEC	Bullet 2 is weak and should have been tied into an interview with DPW for completeness as they maintain a complete database of sampling and analysis.	Cabrera	Bullet will be re-worded to strengthen use of reference and additional references will be added.
52				Joan Jackson	Restoration Manager, USAEC	Cabrera should indicate each report provided in the bullet list to ensure completeness of this effort.	Cabrera	Acknowledged, this comment specifically addresses Ref. 032 in the Radiological Data Summary. The summary provided in Ref. 032 was intended as a working document for Ms. Jackson and was not intended to be a reference in the ECP or in the Historical Site Assessment. References to this summary will be removed from the report and building fact sheet. All other documents have been reviewed by a CHP and applicable documents have been included.
53				Joan Jackson	Restoration Manager, USAEC	The write-up provided for current active wet labs needs to also include a discussion of previously used wet labs and an analysis of the potential for impacts in those areas.	Cabrera	All areas of former wet labs were completely renovated into administrative space (all laboratory equipment/furniture was removed and plumbing was capped), so there is no potential impact in these areas. Wet labs in Bldge 2700 are listed as Class 3 for former wet lab sinks. These areas are not without impact potential which is why they are listed as Class 3. In addition, the acid neutralization pit is listed as Class 2. The discussion will be revised to clarify this information.
54		Floor Plans for Building 2700		Joan Jackson	Restoration Manager, USAEC	The USACHPPM/USAEHA historical reports included numerous building layouts that would be of interest for the time period when radioactive materials were actively used. Cabrera needs to review the reports and determine if the historical figures would be of value for the rad discussion.	Cabrera	All building layouts that the reviewers found involved only isolated individual rooms for x-ray machines (i.e. where the machines themselves are located in the room) rather than floorplan layouts. No useful building layouts could be identified.
55		Building 2704 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	In the first sentence in the Rad Data Summary, the interviewee (LaSala) indicated he has worked at Fort Monmouth since 1981. The text should be revised to include this information and if it occurred in the 80s, 90s, or more recently.	Cabrera	Acknowledged, sentence will be revised to reflect time period.
56		Building 2705 Fact Sheet		Joan Jackson	Restoration Manager, USAEC	In the rad data summary bullet 1 should be amended to include the date of the survey (1988) and the single paragraph following the 2 bullets should identify why the area is "suspected" of former radiological use. Who suspects this and based on what information?	Cabrera	Acknowledged, sentence will be amended to clarify that the suspected area came from the cited reference.
57		Interviews		Joan Jackson	Restoration Manager, USAEC	Alex Chia and Karl Lasala job titles/positions are missing	Cabrera	Acknowledged, positions will be added to interview form.
58		Interviews		Joan Jackson	Restoration Manager, USAEC	In section 17 of the Chia/Lasala interview it seems like this information indicates there is a possibility of environmental release into the sewer but I did not see anything mentioned in the other sections. Need to review with Shaw.	Cabrera	This would not impact the building from a radiological standpoint, as they do not use any radiological materials here -- a mention will be made in the interview to this effect. The presence of the drain has been reviewed with Shaw, so that they can look into any possible environmental releases.
59		Interviews		Joan Jackson	Restoration Manager, USAEC	Lynch/Kucharewski interviews did not include years of employment. Need this for context.	Cabrera	Acknowledged, this information will be added to the interview form.

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60		Interviews		Joan Jackson	Restoration Manager, USAEC	Dempsey interview mentions a record of transfer to the Myers Center in 1954 but no information is provided as to what this means and if it was copied for this report.	Cabrera	Acknowledged, sentence will be revised to clarify context of the statement.
61		Interviews		Joan Jackson	Restoration Manager, USAEC	Borisky interview - need to follow-up with interviewee to ask if the radiological records were sent to ARL when the mission moved. If this information was already obtained, need to so indicate on the report form.	Cabrera	Acknowledged, ARL never had any radiological activities associated with their mission, and so no records were sent with them during the move. This information will be added to the interview form.
62		Interviews		Joan Jackson	Restoration Manager, USAEC	Borisky interview mentioned 3 persons involved in the construction and renovations and rad work at Fort Monmouth prior to moving to ARL but there was no record of follow-up by either Shaw or Cabrera to obtain more information. This is a major data gap and the expectation by USAEC was that these individuals would be contacted per previous discussions during monthly progress calls on project.	Cabrera	Acknowledged, Cabrera did contact Sol Gilman, John Conrad, and Tom Bower (as well as all additional contacts they suggested); follow-up activities and information received will be documented on Mr. Borisky's interview form.
63		Interviews		Joan Jackson	Restoration Manager, USAEC	Silber interview - "...not familiar with NBC Ready Rooms...." is unclear. This statement indicates he does not know what they are rather than he is stating there are none. Which is the case? Need to edit accordingly.	Cabrera	He understands what they are, but does not know of any currently at Fort Monmouth. Interview will be edited to clarify this statement.
64		Interviews		Joan Jackson	Restoration Manager, USAEC	Marcus/Corea interview did not provide position information or years of employment for Corea.	Cabrera	Acknowledged, this information will be added to the interview form.
65		Interviews		Joan Jackson	Restoration Manager, USAEC	Charkowick/Zatorski interview - section 17 line 5 - I believe this is a typo - my understanding is that ARL is at Adelphi, MD and not here in Edgewood.	Cabrera	This is a mistake on ARL location, however, it was directly taken from the conversation with the interviewees. A note will be added to the interview form to clarify ARL actual locations.
66		Interviews		Joan Jackson	Restoration Manager, USAEC	Mealscaglia/Baker interview - missing information on dates of employment	Cabrera	Acknowledged, this information will be added to the interview form.
67		Interviews		Joan Jackson	Restoration Manager, USAEC	Haw/Campbell/Flynn interview - need to look at item 3 - sentence does not make sense - he/they - who and from what date was speaking?	Cabrera	Acknowledged, sentence will be clarified.
68		Interviews		Joan Jackson	Restoration Manager, USAEC	Mangino interview suggested 3 persons for follow-up. Were these persons contacted? If not, Cabrera/Shaw need to contact and interview.	Cabrera	Acknowledged, an interview with Greg Kucharewski has been conducted, and Cabrera has contacted Charlie Goebel and Ira Kaplowitz; follow-up activities will be documented on Mr. Mangino's interview form.
69				Joan Jackson	Restoration Manager, USAEC	Historic photos in Appendix E did not have any sources listed i.e. Which documents were they taken from and who provided them? Master Planning? Historian? Report?	Cabrera	Images came from a calendar provided by the CECOM Museum collection. This resource will be documented and added to the Reference Library.
1		Table 7-1		C. Goldberg	CELCMC	Building 116: Impacted – Class 3 classification assigned to this building. Results of contamination wipe test surveys of storage cabinets used to store potential commodities containing radioactive materials indicate no removable contamination, i.e., less than/equal to the Lower Limit of Detection (LLD) of the laboratory radiation measurement instrumentation used to analyze the wipe test samples. Based upon the above, no further surveying should be necessary.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified

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2		Table 7-1		C. Goldberg	CELCMC	Building 275 (Museum): Impacted – Class 3 classification assigned to this building. Recommend limited surveying of glass displays only, since any potential contamination would be limited to areas displaying radium contained commodities. No surveys are required for night vision devices and components.	Cabrera	Yes, only displays need survey class 3. These could be limited to radium-containing commodities without risk. Thoriated lens displays need no additional survey. These were identified for completeness, as they were not initially identified by the museum.
3		Table 7-1		C. Goldberg	CELCMC	Building 282 (Fire Department): Impacted – Class 3 classification assigned to this building. Recommend reclassification to Non-Impacted. This building was used to store Generally Licensed (GL) devices which required leak testing and RADIAC instruments utilizing Krypton 85 Radioactive Test Samples. Reference 1b recommends no further action.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
4		Table 7-1		C. Goldberg	CELCMC	Building 283 (Squire Hall): Impacted – Class 2 classification assigned to this building. Reference 1a indicates that this building once was used for wipe testing of samples containing aluminum covered with polonium lacquer during the 1951 timeframe. The report referenced by the reference 1a contractor indicates that the wipe test results were less than twice background. Further, considering that this occurred during the 1951 timeframe and considering that the polonium was Polonium 210 (138.4 day half-life), no potential contamination should exist. Recommend classification reassignment to Impacted – Class 3 and meet the recommendations for Class 3 as indicated in reference 1b.	Cabrera	If Po-210 was the only isotope used in the wet labs, then it is agreed that classification as Class 3 is appropriate. The HSA Building Fact Sheet provided evidence that radio communication work/storage (possible radium issues) may have occurred in the basement, based on radio circuitry wire and radio repair manuals found on the shelves. In addition, the building was used as a research laboratory with active floor drains. The floor drains have been covered over and were not accessible at the time of the site visit. Janitorial sinks with traps are accessible and may be used as a surrogate for the floor drains. Checks should be provided for the shelf area in the basement with dirt/debris on the floor/shelves.
5		Table 7-1		C. Goldberg	CELCMC	Building 292 (Museum Storage): Impacted – Class 2 classification assigned to this building. Results of contamination wipe test surveys of storage cabinets used to store potential commodities containing radioactive materials indicate no removable contamination, i.e., less than/equal to the LLD of the laboratory radiation measurement instrumentation used to analyze the wipe test samples. Recommend classification reassignment to Impacted – Class 3 and meet the recommendations for Class 3 as indicated in reference 1b, and based upon the above, no further surveying should be necessary.	Cabrera	It is agreed that Building 292 (Museum Storage) has cabinets with no removable contamination -- checks were made. However, the main portion of the museum/artifact storage area with movable shelves was found to have an electron tube containing radioactive material (shelf area 12E2 #Mon 15091) providing instrumentation readings that were 3-4X background. A Chinese radio with a radioluminescent backlight component showed readings 10-15X background was also observed on the storage area floor. These were described in the Building Fact Sheet for Building 292. Due to the presence of two items found in this area during the cursory review, all movable storage shelves and floor areas in the front section of the museum storage should be scanned for contamination prior to disposal/abandonment in place. The building will be reclassified as Class 3.
6		Table 7-1		C. Goldberg	CELCMC	Building 451 (Postal Facility): Impacted – Class 3 classification assigned to this building. Recommend reclassification to Non-Impacted. This building was used to store GL devices which required leak testing. Reference 1b recommends no further action.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
7		Table 7-1		C. Goldberg	CELCMC	Building 602 (Secured Research/Fabrication): Impacted – Class 3 classification assigned to this building. Recommend reclassification to Non-Impacted. This building was used to store GL devices which required leak testing. Reference 1b recommends no further action.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified

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8		Table 7-1		C. Goldberg	CELCMC	Building 1075 (Health Clinic): Impacted – Class 3 classification assigned to this building. Comments regarding this recommendation should be addressed by Preventive Medicine, Patterson Army Health Clinic.	Cabrera	If only I-125 radioisotope was used in the clinic prior to 1990, then the radioactive decay of I-125 may be utilized to demonstrate that no measurable activity exists and the area is Non-Impacted. The indicated use of I-125 in the hospital prior to 1990 results in a 'no detectable contamination situation' due to the small anticipated amounts of I-125 used for the In-Vitro Clinic, the short half life of the radioisotope (60 days), and no documented use of I-125 use after 2000. The reduction in any plausible I-125 radioactivity due to decay results in no detectable I-125 radioactivity in and around the hot sink, any containers used, or the general work areas where the radioactive material was administered or used. Therefore this building has been reclassified as Non-Impacted.
9		Table 7-1		C. Goldberg	CELCMC	Building 2560 (CWA Fire Department): Impacted – Class 3 classification assigned to this building. Recommend reclassification to Non-Impacted. This building was used to store GL devices which required leak testing. Reference 1b recommends no further action.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
10		Table 7-1		C. Goldberg	CELCMC	Building 2700 (Myer Center): Impacted – Class 2 classification assigned for the Acid Neutralization Pit; Impacted – Class 3 classification assigned for the former wet lab sinks. Our records indicate that Building 2700 was used for research and development activities using sealed sources requiring leak testing at the appropriate intervals. Our staff has indicated that no leakage was ever reported regarding these sealed sources. Recommend reclassification. No further action necessary.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
11		Table 7-1		C. Goldberg	CELCMC	Building 2701 (CWA Secure Entry): Impacted – Class 3 classification assigned to this building. Recommend reclassification to Non-Impacted. This building was used to store GL devices which required leak testing. Reference 1b recommends no further action.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
12		Table 7-1		C. Goldberg	CELCMC	Building 2705 (FCS-NSI Offices): Impacted – Class 3 classification assigned in areas of former radiological use. Our records indicate that Building 2705 was used for research and development activities using sealed sources requiring leak testing at the appropriate intervals. Our staff has indicated that no leakage was ever reported regarding these sealed sources. Recommend reclassification. No further action necessary.	Cabrera	Agreed, leak test results provided to Cabrera are sufficient, so building will be re-classified
1	1-1	1	17	EWB	EN-HI	Multi-Agency Radiation Survey and Site Investigation Manual	Cabrera	The affected text will be corrected as noted.
2	1-1	1	17	EWB	EN-HI	Provide (MARSSIM) acronym following the document title.	Cabrera	The affected text will be corrected as noted.
3	1-1	1	19	EWB	EN-HI	Is the numbering intended to go from (3) directly to (6)?	Cabrera	No. The affected text will be corrected.
4	4-1	Table 4-1	Table	EWB	EN-HI	The table does not indicate the differentiation between a Class 1 and a Class 2 area. The supporting assumptions for which areas are deemed Class 1 as opposed to Class 2 should be present since the remaining document establishes separate Class 1 and Class 2 areas.	Cabrera	Acknowledged, the difference between the Classes will be detailed in an additional footnote.

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5	6-1	6.0	5	EWB	EN-HI	The text in Section 6.0 states that "potential safety/industrial hygiene concerns" will be described in the following section. There does not appear to be further mention of that topic.	Cabrera	These areas have been addressed in Shaw's ECP. Reference will be removed.
6	6-1	6.1	Paragraph	EWB	EN-HI	Need some clarification for a couple of things in this paragraph. 1) The second sentence states the nuclides "based on their behavior". Can that statement be expanded upon to describe this behavior? 2) Should the last sentence state that the remaining "residual activity of" RCOPCs are limited by...(?)	Cabrera	(1) Sentence will be changed to read "...based on their half life and expected behavior and movement in the environment..." (2) This sentence will be amended as suggested.
7	6-2	6.2.1	1	EWB	EN-HI	Suggest including Army-1988 in References section.	Cabrera	Reference date is in error, it will be corrected to read Army-1999.
8	6-7	6.4	3	EWB	EN-HI	I could not be sure of the meaning of the following text: "Other, potentially lesser, areas would include...". I believe a descriptive word or two needs to follow "lesser".	Cabrera	Acknowledged, sentence will be revised to say "Other, potentially lesser-impacted areas would include..."
9	7-1	7.2	2	EWB	EN-HI	The sentence beginning with "Other" suggests that these areas definitely contain contamination. Text may need revision.	Cabrera	The affected text will be revised as noted.
10	Main Text	General	General	EWB	EN-HI	A table containing potential release criteria for this site's RCOPCs may be useful. I believe that info was included in other recent, similar BRAC HSA documents.	Cabrera	The suggested table will be added to the document.
11	Main Text	General	General	EWB	EN-HI	No conceptual site model (CSM) is present in the HSA. The HSA Work plan did not directly state that a CSM would be included, but it might be helpful to either create one or suggest that a CSM should be generated in follow-on activities and which tables and appendices or other info from this report could be used to generate the CSM. For purposes of the HSA, a CSM would be a model/site diagram showing locations of known/potential contamination, isotopes, etc. Most importantly, MARSSIM suggests that this CSM would then be modified in an iterative manner as info becomes available throughout the investigation process. See comment below for related request.	Cabrera	A Conceptual Site Model has been added to the HSA (attached for review).
12	Main Text	7.0	General	EWB	EN-HI	Could there be further description in the report text or an existing or new table within the Findings that summarizes the Building Fact Sheets' major RCOPC topics, such as 1) the suggested MARSSIM classifications and supporting assumptions for each 2) the number of impacted rooms 3) which RCOPCs would be anticipated. The overall goal of this comment would be to have one table or location that succinctly describes the major contaminant topics, as would a Conceptual Site Model.	Cabrera	An additional summary table has been added to Section 6. The reviewer is referred to the following document - Phase II Recommendations - for additional detail on classifications, proposed investigation approach, etc.
13	Main Text	General	General	EWB	EN-HI	Please include a review of the Evans area HSA and related investigation information in order to determine if any of that information may support this HSA.	Cabrera	Document has been received from Charles Appleby and will be reviewed and Referenced in the Final report.
14	App B	Bldg 205 Fact Sheet	RDS Section	EWB	EN-HI	The reference to Bldg 116 as a building of interest looks to be a typo.	Cabrera	The affected text will be corrected as noted.

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15	App C	Barry Silber Interview	#5	EWB	EN-HI	Does Mr. Silber's reference to rad material usage in certain areas regard only present day usage? The presence of Ni-63 sources in most of these areas is addressed in the Building Fact Sheets, but given the general nature of his response it could be interpreted as potentially pertaining to past rad material usage as well. This would be most important for those areas on his list that are being considered non-impacted.	Cabrera	No, the list of buildings-of-interest provided by Mr. Silber includes both past and present usage. The Ni-63 sources are generally associated with explosive and chemical detectors.
16	App C	Barry Silber Interview	#5	EWB	EN-HI	Mr. Silber, in his interview, refers to the Charles Wood and Oceanport Sentry posts. Are these areas evaluated within the HSA? If not, do they need to be?	Cabrera	The Charles Wood entry is "Building 2701" and was investigated. The Oceanport gate was considered, but it was discovered that no materials were kept there and so it was not visited. The information for this location will be added on to the Building 2701 Fact Sheet.
1	Gen			Alberth	CHPPM	These comments are for the Radiological Historical Site Assessment Addendum to the ECP Cabrera contractor-prepared report (September 2006). Cabrera has developed an excellent draft Radiological Historical Site Assessment Addendum report for the ECP Report. The report follows a proper outline and methodology addressing DQOs, historical records search, and a MARSSIM approach to categorize impacted and non-impacted areas on the installation. Some editorial comments are provided to clarify sections in the report.	Cabrera	Acknowledged
2	1-4	Table-Survey Areas	9	Alberth	CHPPM	Building 1075 (Health Clinic). I agree with assigning the MARSSIM Class 3 category to this building. Were any documents or interviews obtained regarding I-131 scans and thyroid therapies and in vitro laboratory use for radioimmunoassay procedures; e.g., carbon-14 "BACTEC" method? It is entirely possible that used BACTEC vials, with blood and C-14, were incinerated in the Pathology incinerator. This was an approved method of disposal at one time; however, rules for disposal of in vitro radioactive material evolved over time during the 1970s and 1980s between the NRC and the Army Medical Department.	Cabrera	The only radioactive materials identified were I-125. C-14 was never mentioned during interviews. Class 3 would appear to be an appropriate classification to address the potential for C-14 and "BACTEC".
3	4-1	Table 4-1	2nd row	Alberth	CHPPM	Definition of "Impacted (MARSSIM class 3) is confusing. Change "Typical areas include areas where commodities were received, stored , and shipped, but without integrity impacts such as commodity repair or maintenance." to "Typical areas include areas where commodities were received, stored , and shipped, but without <u>loss of sealed source integrity, such as, can potentially happen in</u> commodity repair or maintenance." An option is to delete this second sentence with the example entirely.	Cabrera	Acknowledged. This clarification will be made in the table.

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4	5-3	5.2.2		Alberth	CHPPM	In my preliminary write-up for the Fort Monmouth ECP Workshop, I listed references to two historical license documents reference in USAEHA reports regarding the Fort Monmouth MEDDAC (U.S. Army Patterson Hospital): These were an AEC (now NRC) license for the I-131 scans and therapies (unsealed radioactive material) and an AEC (now NRC) Registration Certificate for in vitro laboratory testing: AEC (now NRC) License No. _____ (?), issued to Fort Monmouth MEDDAC (U.S. Patterson Army Hospital) [possible historical document]. AEC (now NRC) Registration Certificate – In Vitro Testing with Byproduct Material under General License, 21 June 1975, Fort Monmouth MEDDAC (U.S. Patterson Army Hospital) [historical document].	Cabrera	Due to the short half-life of the radioactive materials identified as being used in these areas (I-125 and I-131) no detectable levels of these radioactive materials will remain assuming a last use prior to the 1990's. Should other long-lived radioactive materials have been used, then the area would be a Class 3 area, but Cabrera did not see any indications of long lived (>180 days) radioactivity used at the hospital. The area will be considered a Non-Impacted area based upon decay of any short lived residual activity present.
5	6-1	Table 6-1	4	Alberth	CHPPM	C-14. Does the 1997-2000 files refer to historical use of unsealed C-14 in vitro laboratory work at the Ft. Monmouth MEDDAC?	Cabrera	Files were not found that indicated the presence or absence of C-14 at MEDDAC.
6	1-4 and 6-3	2nd paragraph (p. 1-4) and 1st paragraph (p. 6-3)		Alberth	CHPPM	The program for removal of H-3 Exit Signs is discussed in the EXSUM and in Section 6. The EXSUM says the program was to be completed in 2003 and no further information was available. Information on Page 6-3 states the program was to be completed in 2003. What is the status? Are there still buildings on Fort Monmouth with H-3 Exit Signs still installed?	Cabrera	The fire department indicated that this program was in existence in the past and that such signs were collected. No additional information was made available by fire department personnel.
7	6-7	6.4		Alberth	CHPPM	This paragraph discusses areas where hazardous materials were disposed of and near-by groundwater (such as the Acid Neutralization Pit), which should be sampled for radioactive material contamination. This appears to be a catch-all, generalized statement. I did not see any reference for radioactive chemical sampling, only metals, in the ECP Phase II Sampling Recommendations Report (October 2006).	Cabrera	It was assumed that the acid neutralization pits would have collected drains from the "wet laboratory" chemical sinks that may have used radioactive materials. No reference to radioactive sampling during chemical sampling was found which is why it was suggested that precautionary sampling for radioactive materials in the acid neutralization pit might be undertaken. Due to the fact that recently received leak test data show no results above LLD from samples in Bulding 2700 the building was reclassified to non-impacted and no contamination is expected to be in the sinks leading to the Acid Neutralization Pit or the pit itself.
8	Gen			Alberth	CHPPM	The ECP Phase II Sampling Recommendations Report (October 2006) discusses sampling in and around specific buildings for hazardous and toxic materials. The Radiological Historical Site Assessment Addendum to the ECP Cabrera contractor-prepared report (September 2006) discusses in a general way the need to sample for NORM, TENORM, and radioactive material contamination from licensed operations that are all above DCGLs. Is this to be integrated into the ECP Phase II Sampling Recommendations Report or is this discussed in another report or plan? Is there more specific documentation to make this recommendation?	Cabrera	Sampling recommendations will be reviewed for compatibility with MARSSIM.
1				Alberth	CHPPM	The following comments refer to the list of comments consolidated by AEC for the Phase I Draft ECP Review for Fort Monmouth.	Cabrera	Acknowledged
2	4-20		12	Alberth	CHPPM	The comment from W. Green, DPW, is incorrect. AEHA stands for the U.S. Army Environmental Hygiene Agency (USAEHA or AEHA). This change should be made throughout the document.	Cabrera	Acknowledged, this change will be made throughout the document.

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3	Gen			Alberth	CHPPM	The comments from Craig Goldberg are excellent. Mr. Goldberg and Mr. Barry Silber are the resident radiation subject matter experts for Fort Monmouth. The following comments are provided for consideration or discussion:	Cabrera	Acknowledged
4	Gen			Alberth	CHPPM	Do Cabrera's and Mr. Goldberg's comments adequately address both current and historical uses of radioactive materials at Fort Monmouth? More current Army commodities with sealed radioactive sources have excellent source housing integrity (ANSI standard) as opposed to historical commodities that used radium, for example. I support Mr. Goldberg's recommendation to re-classify Bldgs. 282 (Fire Dept), 451 (Postal Facility), 602 (secured/Research/Fabrication), 2560 (CWA Fire Dept), and Bldg.2701 (CWA Secure Entry) to "Non-impacted" since the only radioactive sources they had were sealed sources that were leak tested on a regular basis and no incidents of leakage were documented.	Cabrera	Acknowledged, Bldgs 282, 451, 602, 2560, and 2701 will be re-classified to "Non-Impacted"
5	Gen			Alberth	CHPPM	For Bldgs. 116, (Shipping and Receiving with a designated radioactive material holding area), radiation safety program records are available that indicate no incidents of radioactive contamination in the holding area. I support Mr. Goldberg's recommendation.	Cabrera	Acknowledged, building has been re-classified as "Non-Impacted."
6	Gen			Alberth	CHPPM	For Bldg. 275 (Museum) , Mr. Goldberg states that only surveying of the glass displays where the radium commodities are displayed is required. Are there any workrooms in the museum where the radium commodities were prepared for display, repair, or temporary storage or was this all done in the CECOM radiation laboratory? If the latter is true, I support Mr. Goldberg's recommendation.	Cabrera	Agree, that only the glass displays in building 275 with identified radioactive commodities need to be surveyed. No other areas in the museum have any identified radioactive commodities. No workrooms were identified by the museum curator. Discussions with the curator indicate that CECOM prepared the subject displays.
7	Gen			Alberth	CHPPM	For Bldg.292 (Museum storage), I support Mr. Goldberg's recommendation to reclassify the building as "Impacted-Class 3". The museum curator had shown me the storage cabinets with the radium commodities stored in plastic bags. As long as the commodities were taken into the building in the sealed bags and no work was done in work spaces in the building, it should be ok based upon CECOM's radiation safety program and periodic wipe tests of the storage areas for removable radioactive contamination.	Cabrera	Agreed, the movable cabinet storage areas and floor areas are impacted Class 3. The movable storage shelves in the main area also should be included in this impacted class 3 classification on the basis of the finding of at least one radioactive tube during a cursory review of the shelf contents and a foreign country radio with radioluminescent dials stored on the main floor area. Both had significant count rates above that associated with items in the radioactive storage cabinet.
8	Gen			Alberth	CHPPM	Mr. Goldberg refers decisions on Bldg. 1075 (Health Clinic) to the Fort Monmouth MEDDAC. See my comments 2 and 4 (Phase I ECP Report) above. I have tried to contact a MEDDAC RSO that was stationed at the MEDDAC in the late 1970s and early 1980s to see if he can provide some useful historical information on radioactive material usage at the MEDDAC. I have had no success, yet.	Cabrera	Cabrera was unable to make contact with any additional personnel beyond the two interviewed during the site visit, but Mr. Alberth was able to gain additional information from MAJ Michael McDevitt, a Medical Service Corps Environmental Science Officer, who was the Radiation Protection Officer (Radiation Safety Officer) for the Fort Monmouth MEDDAC (Patterson Army Community Hospital) during the time period of 1984 through 1988.

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9	Gen			Alberth	CHPPM	Mr. Goldberg indicates that only sealed sources were used in Bldg. 2700, Myer Center, that were leak tested on a scheduled basis, without any indications of leakage. If no unsealed radioactive materials were ever used in this building, then there is no need for surveying the wet sinks or the acid neutralization pit for radioactive materials. I would then support his recommendation to reclassify the building to "non-impacted" for radioactive materials. However, I would like to see more information on what was dumped into the wet sinks and the acid neutralization pit. Was there any extensive use of chemicals that contained NORM or TENORM (e.g., uranyl nitrate or uranyl acetate)?	Cabrera	The lack of finding any solid information during the onsite visit resulted in the radioactive sampling of the neutralization pits suggested earlier in comment 7. No listing of radioactive materials or chemicals currently being used was identified for the Myer Center. Sufficient leak test results have been received for sealed sources previously located in this building, therefore the building (as well as the acid neutralization pit) will be re-classified as non-impacted.
10	Gen			Alberth	CHPPM	For 2705 (FCS-NSI Offices), if Mr. Goldberg's office has Radiation Safety Program records documenting that only sealed sources, with scheduled leak tests and no leakage reports, were used in this building, then I support his recommendation to reclassify the building as "non-impacted."	Cabrera	Acknowledged, leak test data has been received and is sufficient, therefore, Bldg 2705 will be re-classified as "Non-Impacted"
1	Gen			Alberth	CHPPM	The following comments refer to the list of comments submitted by CENAB for the Phase I Draft ECP Review for Fort Monmouth.	Cabrera	Acknowledged
2	CENAB #11			Alberth	CHPPM	I support the CENAB recommendation to use a Conceptual Site Model (CSM) as a diagram in the Phase I ECP Review for Fort Monmouth that or provided in more detail in follow-on activities.	Cabrera	Acknowledged, a CSM has been developed and incorporated into the report.
3	CENAB #15			Alberth	CHPPM	The CENAB comment regarding the Barry Silber Interview regarding current versus historical use of radioactive materials at Fort Monmouth is important. It echoes my comment #4 in the previous section. The Phase I ECP Review for Fort Monmouth should reflect the most current and consistent information regarding the Environmental Condition of Property for the Fort Monmouth installation.	Cabrera	The list of buildings-of-interest provided by Mr. Silber includes both past and present usage.