

Section II
Production

Chapter 7
Environmental Review

7.0

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46 *[Note: On April 23, 2024, HUD published a Final Rule, “Floodplain Management and](#)*
47 *[Protection of Wetlands; Minimum Property Standards for Flood Hazard Exposure; Building to](#)*
48 *[the Federal Flood Risk Management Standard,” updating certain requirements. Although](#)*
49 *[Lenders may begin using the updated floodplain management rule after its effective date of May](#)*
50 *[24, 2024, Lenders are not required to do so until January 1, 2025. Accordingly, the updated rule](#)*
51 *[is not encompassed within this draft chapter, but HUD anticipates incorporating its new](#)*
52 *[provisions in a future iteration of this chapter.](#)*
53

54 **7.1**

Introduction

55 This chapter outlines [for the Lender and HUD staff](#) the policies and procedures that must be
56 followed to meet [HUD’s](#) environmental [review](#) responsibilities. The standards and guidance
57 documents referenced in this chapter may be updated, amended or superseded from time to time.
58 Wherever standards or guidance are cited in this chapter, [ORCFHUD](#) requires reliance on the
59 most recent edition or superseding document. [For ASTM E1527 Standard Practice for](#)
60 [Environmental Site Assessments, HUD requires use of the most recent edition that the](#)
61 [Environmental Protection Agency has adopted into its All Appropriate Inquiries rule at 40 CFR](#)
62 [312.](#)
63

64 **A. Legal Authorities, [Handbooks](#) [Guidance, Standards, and Forms](#) [Documentation](#)**

- 65
- 66 1. All Federal agencies are required to comply with the National Environmental Policy Act
67 of 1969 (42 U.S.C. 4321 et seq.) (NEPA), and the implementing procedures issued by the
68 Council on Environmental Quality at 40 CFR Parts 1500-1508. U.S. Department of
69 Housing and Urban Development (HUD) regulations implementing NEPA are contained
70 in 24 CFR ~~Part~~ [Parts](#) 50, “Protection and Enhancement of Environmental Quality²²” [and](#)
71 [58, “Environmental Review Procedures for Entities Assuming HUD Environmental](#)
72 [Responsibilities”.](#) [24 CFR Part 50 applies to the Section 232 Program.](#) Related Federal
73 laws ~~and,~~ [authorities and HUD regulations](#) are listed in 24 CFR 50.4 and 50.3(i). [Under](#)
74 [Part 50,](#) HUD may not delegate its environmental responsibilities to others; ~~it~~ [HUD](#) is
75 required to prepare the [final](#) environmental ~~assessment and~~ [review record,](#) make the
76 appropriate environmental finding, [and obtain all required reviews, comments and](#)
77 [approvals prior to issuing a Firm Commitment.](#) (See 24 CFR 50.11.)
78
 - 79 2. HUD has issued ~~two handbooks covering~~ [guidance on complying with](#) environmental
80 [issues: Handbook 1390.2, “requirements at the HUD Exchange Environmental](#)
81 [Assessment Guide for Housing Projects”, and Handbook 1390.4, “A Guide to HUD](#)
82 [Review website, which is accessible from the ORCF Environmental Criteria and](#)
83 [Standards Contained in 24 CFR 51”.](#) [Guidebooks issued by HUD on environmental](#)

84 issues are cited in this chapter[Resources page located on the Section 232 Program](#)
85 [website.](#)

86
87 3. HUD has ~~also~~ established the HUD Environmental Review Online System (HEROS) –
88 [Form HUD-4128 to replace the paper HUD-4128 as the prescribed format for all HUD-](#)
89 [document compliance with NEPA and other Federal environmental laws, authorities,](#)
90 [Executive Orders, and HUD standards. The use of HEROS to document environmental](#)
91 [reviews.](#) ~~HUD staff are~~ is required to use HEROS to document all Part 50
92 [environmental reviews, consistent with the requirements under 24 CFR 50.31. Further,](#)
93 [as HEROS becomes accessible to the Section 232 lenders, those lenders are expected to](#)
94 [use HEROS for inputting](#)18(a). All required source documentation, including the ASTM
95 [Phase I Environmental Site Assessment \(Phase I ESA\), must be uploaded to the relevant](#)
96 [environmental data for 232 transactions](#)HEROS screens. HEROS source documentation,
97 [including but not limited to the ASTM Phase I ESA, will be made available to the public](#)
98 [for one year after completion of the review.](#)

99
100 4. ~~Existing projects to be refinanced or purchased under Section 232/223(f) and many~~
101 ~~rehabilitation projects are categorically excluded (CE) from NEPA compliance (see~~
102 ~~exclusions in 24 CFR 50.20(a)). Such projects do not require~~[The Lender must submit an](#)
103 [environmental assessment under NEPA except in extraordinary](#)[report to HUD using the](#)
104 [HEROS system for all projects. See Section 7.2.A “Lender’s Responsibilities” below.](#)

105
106 5. Aggregation: In accordance with 24 CFR 50.21, activities that are geographically related
107 [and are logical parts of a composite of contemplated HUD projects shall be evaluated](#)
108 [together. Where a parcel that secures the FHA mortgage is part of a larger site, the project](#)
109 [should be defined as the parcel plus the parts of the rest of the site that are directly related](#)
110 [to the Section 232 development \(access roads, parking, storm water detention systems,](#)
111 [open spaces, utilities, etc.\). What gets defined as directly related is contextual; it depends](#)
112 [on project circumstances \(see 24 CFR 50.20\(a\) and \(b\)\), but they must may vary from](#)
113 [project to project.](#)

114
115 [For all projects, the environmental review can and often must extend beyond the defined](#)
116 [project boundaries in order to comply with the laws and authorities. The area of impact](#)
117 [may differ based on the individual 50.3\(i\) or 50.4 authority under review and the type of](#)
118 [activity undertaken. For example, an Area of Potential Effect considered under the](#)
119 [National Historic Preservation Act can extend beyond the boundaries of a project site,](#)
120 [especially if a project is in a historic district. Similarly, off-site endangered species may](#)
121 [be impacted by the FHA action.](#)

122
123 6. Requirements in this chapter may exceed those of many state and federal agencies. One
124 [reason for this is if a Borrower defaults on an FHA-insured project, HUD may become](#)
125 [the project owner. Under Section 120\(h\) of the Comprehensive Environmental Response](#)
126 [and Liability Act \(CERCLA\), Federal agencies that own properties are required to take](#)
127 [“all remedial action necessary to protect human health and the environment” with respect](#)
128 [to known hazardous substances upon disposition of the property. This requirement is](#)
129 [beyond any liability releases under State or Federal law and any due diligence](#)

130 requirements under CERCLA.

131
132 7. ~~at 24 CFR 50.4. In addition, CE projects must document~~Local, State, Tribal or
133 Federal Laws (LSTF): The acronym LSTF as used in this chapter refers to “local, state,
134 tribal or Federal”.

135
136 a. HUD will not assume any responsibility with respect to inspection, enforcement,
137 interpretation or determination of compliance with parameters related to Nuisances
138 and Hazards such as pipelines, fall hazards, and oil and gas wells, as described below.
139 state or local requirements.

140
141 b. Where the project is located on a Native American reservation, the tribal authority
142 may need to assume the responsibilities of the state or local environmental protection
143 agencies.

144 c. This chapter is not a substitute for requirements in the laws, regulations, and
145 Executive Orders regarding environmental analysis and mitigation.

146
147 8. Waivers: If ORCF intends to waive any of the requirements in this Section 7.3.Q (Site
148 Contamination Analysis) that are not regulatory in nature, the advice of the Housing
149 Environmental Clearance Officer or the applicable REO/FEO in whose district the
150 project is located, will be obtained before the waiver is granted to ensure that such waiver
151 is in compliance with the environmental requirements of 24 CFR 50.3(i).

152 153 **B. Levels of Environmental Review**

154 The level of environmental review varies based on the HUD program and the proposed
155 activity. Projects are categorized by activities into four levels of review under 24 CFR
156 Part 50:

- 157 • Categorically Excluded Not Subject to the laws and authorities at 50.4 (CENST)
- 158 • Categorically Excluded Subject to the laws and authorities at 50.4 (CEST)
- 159 • Environmental Assessment (EA)
- 160 • Environmental Impact Statement (EIS)

161 162 **1. Categorically Excluded Not Subject to Related Laws and Authorities (CENST):**

163 Pursuant to 24 CFR 50.19(b)(21), “refinancing of ~~FHA~~HUD-insured mortgages that will
164 not allow new construction or rehabilitation, nor result in any physical impacts or
165 changes except for routine maintenance” are categorically excluded from the
166 environmental assessment (EA) requirements of the National Environmental Policy Act
167 (NEPA), except in extraordinary circumstances, and do not require compliance with the
168 Federal laws and authorities specified at 24 CFR ~~Part~~ 50.4, other than for the flood
169 insurance requirements specified at 24 CFR 50.4(b)(1). Thus, currently FHA-insured
170 Section 223(f) and 223(a)(7) refinancing transactions that meet these criteria do not
171 require an environmental review. However, the flood insurance requirements specified at

24 CFR 50.4(b)(1) are still applicable. ~~In addition, all Section 232 projects that are located on sites in a 100-year or 500-year floodplain must maintain an emergency preparedness plan. The exhibits listed at 7.3.K.12.a, b, c must be submitted with the mortgage insurance application. Please note, 24 CFR 50.19(b)(21) applies only to projects with existing HUD mortgage insurance.~~

~~For environmental review purposes, the term “maintenance” means an activity that slows or halts deterioration of a building and does not materially add to its value or adapt it to new uses. Please refer to HUD Notice CPD-16-02 “Guidance for Categorizing an Activity as Maintenance for Compliance with HUD Environmental Regulations, 24 CFR Parts 50 and 58” or succeeding guidance. Note that this, which is available on the ORCF Environmental Resources page. This definition of maintenance is specifically for environmental review purposes and applies to all HUD programs.)~~

~~Refinances~~ ~~Note that refinances~~ of currently FHA-insured mortgages under Sections 223(a)(7) and 223(f) ~~require an environmental review utilizing HEROS Form HUD 4128) do not qualify for CENST level reviews~~ when any of the conditions listed at 7.1.A.6.a., b., or c. ~~immediately~~ below apply ~~to~~. ~~For projects that do not qualify for CENST level reviews, the project. The review process and requirements include submission of a current Phase I Environmental Site Assessment and Vapor Encroachment Screen, HUD’s (VES), consultation with the State Historic Preservation Officer (SHPO), compliance with floodplain management and wetlands regulations and all other applicable environmental requirements. A project does not qualify for a CENST level review~~ when:

- a. The facility has completed a building addition without having obtained HUD’s approval;
- b. The project will acquire or has acquired land that was not insured under the original mortgage loan and the facility has yet to receive HUD’s approval of the additional land; or
- c. The project will involve changes, improvements or repairs that do not qualify as routine maintenance ~~(Please see, (See HUD Notice CPD-16-02 “Guidance for Categorizing an Activity as Maintenance for Compliance with HUD Environmental Regulations, 24 CFR Parts 50 and 58” or succeeding guidance. Note that this definition of maintenance is specifically for environmental review purposes and applies to all HUD programs.)~~

2. HUD has determined that **Categorically Excluded Subject To Related Laws and Authorities (CEST):**

- a. Pursuant to 24 CFR 50.20(a), existing projects to be refinanced or purchased under Section 232/223(f) ~~refinance~~ and rehabilitation projects described at 24 CFR 50.20(a)(2)(ii) are categorically excluded from NEPA compliance but are still subject to the laws and authorities listed at 24 CFR 50.4 and 24 CFR 50.3(i), described in Section 7.3 below. In addition, CEST projects must comply with programmatic Housing Requirements related to Nuisances and Hazards as described in Section 7.4 below.

217 b. For 232/223(f) projects that include new construction of accessory structures or
218 ancillary improvements, the level of review remains the same as a traditional 223(f)
219 project (CEST), but because the project will include ground disturbance, there is a
220 greater risk of environmental impact. The project description must include the extent
221 of the ground disturbance including area of disturbance and depth of impact and the
222 HEROS review must consider the laws and authorities at 24 CFR 50.4, 24 CFR
223 50.3(i), and Section 7.3 in the context of new construction, including, but not limited
224 to:

- 225 • Consultation (NHPA, Section 106 review) with federally recognized Tribes in
226 addition to the State Historic Preservation Officer (SHPO) and other consulting
227 parties, as appropriate, under the National Historic Preservation Act.
- 228 • Noise assessment and mitigation as required if the new construction is a noise
229 sensitive use.
- 230 • Above Ground Storage Tank requirements for new construction.
- 231 • Airport clear zone requirements for new construction.
- 232 • The 8-step analysis for construction in a floodplain or wetland in accordance with
233 24 CFR 55.20.
- 234 • Consideration of Endangered Species, Farmlands, Sole Source Aquifers, Wild and
235 Scenic Rivers, Coastal Zones, Air Quality and Environmental Justice.

236 c. Almost all 232/223(f) projects will be CEST-level reviews, with two limited
237 exceptions:

- 238 i. Currently HUD-insured Section 223(f) refinancing transactions of non-HUD
239 insured mortgages that will not allow new construction or rehabilitation, nor result
240 in any physical impacts or changes except for routine maintenance, and which
241 meet the criteria discussed above for CENST-level review; or
- 242 ii. Categorical Excluded projects having the potential for a significant impact
243 because of extraordinary circumstances may require an Environmental
244 Assessment or Environmental Impact Statement (see 24 CFR 50.20(b)).

245 **3. Environmental Assessment (EA):** Reviews of all new construction projects and reviews
246 of Section 232 rehabilitation, 241(a) and 223(a)(7) projects that rise above the limits of
247 CEST rehabilitation at 24 CFR 50.20(a)(2)(ii) must include the laws and authorities listed
248 at 24 CFR 50.4 and 24 CFR 50.3(i) (see Section 7.3 below) and Nuisances and Hazards
249 (see Section 7.4) as well as the Environmental Assessment requirements at Section 7.5.

250 **4. Environmental Impact Statement (EIS):** An EIS is required if the proposal is determined
251 to have “no potential to cause effects” to historic properties, as described in 36 CFR
252 800.3(a)(1), and therefore have no further obligations under Section 106 of the Historic
253 Preservation Act or 36 CFR Part 800. For such transactions, contact with the State Historic
254 Preservation Officer (SHPO) or Tribal Historic Preservation a significant impact on the
255 human environment. EIS level reviews are rarely required for Section 232 projects. An
256 EIS will normally be required if the proposal would provide a site or sites for a project
257 containing a total of 2,500 or more beds or units. Contact the HUD Regional Environmental
258 Officer (THPO) is not required, and HUD staff responsibilities are limited to documenting

259 [this determination in HEROS Form HUD-4128REO](#)) or Field Environmental Officer
260 (FEO) if the project is close to 2500 beds or units. REO contact information is accessible
261 [from the ORCF Environmental Resource page](#).

262
263 ~~4.1. Requirements in this chapter may exceed those of many state agencies. One reason~~
264 ~~for this is if a Borrower defaults on an FHA-insured project, HUD may become the~~
265 ~~project owner. Under Section 120(h) of the Comprehensive Environmental Response and~~
266 ~~Liability Act (CERCLA), Federal agencies that own properties are required to take “all~~
267 ~~remedial action necessary to protect human health and the environment” with respect to~~
268 ~~known hazardous substances upon disposition of the property. This requirement is~~
269 ~~beyond any liability releases under State or Federal law and any due diligence~~
270 ~~requirements under CERCLA.~~

271 272 **B. Local, State, Tribal or Federal Laws (LSTF)**

273
274 1. The acronym LSTF as used in this chapter refers to “local, state, tribal or Federal”.

275
276 2. In cases where state or local laws, tribal laws, ordinances, codes or regulations are
277 more restrictive than Federal requirements, the applicant must comply with the
278 stricter standard unless Federal law states otherwise. An application for Firm
279 Commitment does not relieve an owner of responsibility for compliance with state or
280 local requirements.

281
282 3. HUD will not assume any responsibility with respect to inspection, enforcement,
283 interpretation or determination of compliance with such state or local requirements.

284
285 4. Where the project is located on a Native American reservation, the tribal authority
286 may need to assume the responsibilities of the state or local environmental protection
287 agencies.

288
289 5. This chapter is not a substitute for requirements in the laws, regulations, and
290 Executive Orders regarding environmental analysis and mitigation.

291 292 **7.2**

Procedures

293 294 **A. Lender’s Responsibilities:**

295
296 1. [The Lender, or its environmental consultant, must submit an Environmental Review](#)
297 [Record \(ERR\) to HUD using the HEROS system for all projects. The HEROS](#)
298 [submission must follow the requirements as described in this chapter. The failure to](#)
299 [submit a complete ERR, including applicable supporting documentation, may cause](#)
300 [delays in the environmental review process.](#)

301 a. [The HEROS submission must include a description of the proposed work involved in](#)
302 [the project, including the size of the parcel, the size and number of buildings and all](#)

303 associated physical impacts including proposed repairs, improvements, construction
304 and alterations. Site work that involves ground disturbance (digging), including
305 grading, must be specifically identified to include area of ground disturbance and
306 depth of impact. Site clearing and tree removal must also be identified. The lender
307 must review the HEROS submission to confirm that the work described in HEROS
308 accurately represents the work that is proposed in the mortgage insurance application
309 that is submitted to ORCF.

310 b. The Lender must identify any environmental issues to be resolved in the HEROS
311 submission and in the Lender Narrative, including a plan accompanied by a
312 timeframe to resolve identified issues, cost estimates and identification of those
313 responsible for implementing the plan. To the extent possible, all environmental
314 issues should be resolved prior to submission of the application. HUD will not upload
315 the Lender Narrative to HEROS.

316 c. The Lender must download the HEROS Environmental Review Record (ERR) and
317 include the ERR as an exhibit in the application submission. The title given to the
318 ERR should clearly identify it as the HEROS Environmental Review Record.
319

320 ~~1-2.~~ All projects (new construction, substantial rehabilitation, refinancing or purchase)
321 submitted under Section 232, Section 232/223(f), Section 241(a), and Section
322 232/223(a)(7) require various submissions related to site contamination as detailed in
323 Section 7.3.Q, unless the CENST exemption for FHA-insured projects described at Section
324 7.1.A-5B.1 applies.

325
326 ~~2-3.~~ TheIn addition to the HEROS report discussed above, the Lender will address NEPA
327 environmental factors and the environmental laws and authorities at 24 CFR 50.4 and 24
328 CFR 50.3(i) within the Lender Narrative, and will provide supporting documentation in the
329 application submission as applicable.

330
331
332 ~~3-4.~~ **Timing of activities:** HUD environmental policy, consistent with requirements in 40
333 CFR 1506.1, requires that there be a limitation of certain activities or actions by any
334 direct or indirect parties to the transaction, from the time of application submission until
335 HUD has completed the environmental review process. Specifically, no action
336 concerning the proposal shall be taken which would: (1) have an adverse environmental
337 impact, (2) limit the choice of reasonable alternatives or (3) prejudice the ultimate
338 decision on the proposal. Activities that limit the choice of reasonable alternatives
339 include an action or commitment to undertake real property acquisition, repair,
340 rehabilitation, construction, demolition, significant ground disturbance, site clearance, or
341 ground disturbing activities beyond minimal soil borings or minimal archaeological tests
342 for site assessment purposes.

343 ~~Certain actions, such as development of plans or designs, or performance of other work~~
344 ~~necessary to support an application for Federal, state or local permits, do not fall within~~
345 ~~such limitations.~~

346 Actions

347 a. ~~Other actions,~~ such as the acquisition, demolition or modification of a wetland, or
348 actions significantly affecting a historic property, ~~do~~ fall within such~~the~~ limitations

349 [described above](#). Additionally, pursuant to the “anticipatory demolition”
350 requirements of Section 110(k) of the National Historic Preservation Act (~~1654~~
351 U.S.C. ~~470h-2(k)~~,306113) with guidance provided by the Secretary of Interior at 63
352 FR 20496, even before application submission takes place, any action by a potential
353 Lender or Borrower, or any action by another party that the Lender or Borrower has
354 the legal power to prevent, that is taken with the intent to avoid Section 106 review
355 and that significantly adversely affects a historic property, ~~could~~[can](#) result in ~~eventual~~
356 rejection of an application.

357
358 b. Work that exceeds the level of routine maintenance must not begin until HUD
359 prepares its Environmental Review Record and approves the action. (See HUD
360 Notice CPD-16-02 “Guidance for Categorizing an Activity as Maintenance for
361 Compliance with HUD Environmental Regulations, 24 CFR Parts 50 and 58” or
362 succeeding guidance, which is available on the ORCF Environmental Resource
363 page.) Existing properties may continue normal operations during the FHA
364 application process, including completing routine maintenance or emergency
365 repairs. For additional guidance on what constitutes routine maintenance see the
366 Environmental Review Fact Sheets on HUD Exchange, (Additional Guidance on
367 Maintenance in Environmental Review of Office of Housing Programs). This
368 additional guidance should be used in conjunction with Notice CPD-16-02,
369 referenced above. Lenders must request approval to begin a repair that exceeds
370 routine maintenance prior to completion of HUD’s Environmental Review if it is
371 identified in the Capital Needs Assessment as a critical repair to correct items that
372 affect life, health, and safety, or are a hazard to the occupants (e.g., installation of
373 smoke detectors). Such work must not begin until the HUD Approving Official
374 has approved the request. If work occurred before the application’s submission to
375 HUD, whether the work was complete or still in progress at the time of the
376 application submission, the work is not eligible for inclusion as a project repair;
377 and the associated costs must not be included in the project’s critical, non-critical
378 or borrower proposed repair costs.

379
380 c. Other work that exceeds the level of routine maintenance and is not otherwise
381 permitted under the preceding paragraph (7.2.A.4.b) may not be done before the
382 HUD Approving Official signs and certifies the environmental review. The lender
383 must confirm with ORCF that the work does not exceed routine maintenance, or
384 that it is permitted under the preceding paragraph, before commencing the work.

385
386 b.d. If any party is unsure as to whether an action would fall within such limitations,
387 they should seek advice, ~~and possibly approval,~~ from the Office of Residential
388 Care Facilities (ORCF) ~~.)~~ prior to beginning the activity. These requirements are
389 distinct and separate from any early start of contractually related construction
390 activities.

391 B. HUD Staff Responsibility:

- 394 1. In accordance with 24 CFR 50.32, HUD, ~~not the Lender,~~ is responsible for
395 ~~performing independently~~ evaluating the information supplied by the Lender in HEROS,
396 ~~supplementing that information as needed, and making the required findings in HEROS~~
397 ~~as the environmental review, completing the review in HEROS Form HUD-4128, and~~
398 ~~determining that record for the project raises no environmental conditions prohibited by~~
399 ~~law. HUD will determine whether the proposed project: (a) is out of compliance with~~
400 ~~applicable laws, Executive OrderOrders, or regulation, or that regulations, (b) would~~
401 ~~otherwise endanger residents' health or safety, or that(c) would put FHA mortgage~~
402 ~~insurance or the U.S. Government at financial risk or liability due to environmental~~
403 ~~conditions. The HUD reviewer will obtain interdisciplinary assistance from professional~~
404 ~~experts and other HUD staff as needed. The Lender/Borrower are expected to provide~~
405 ~~information needed for the review and, as HEROS becomes available, to input applicable~~
406 ~~data into that system. Additional information may also be requested of the~~
407 ~~Lender/Borrower.~~
- 408
- 409 2. ~~As part of its environmental review responsibilities, HUD may request additional~~
410 ~~information from the Lender/Borrower. For example, HUD may require additional~~
411 ~~material such as a Phase II ESA or a Biological Evaluation when needed to assist with~~
412 ~~HUD's environmental finding.~~
- 413
- 414 2.3. HUD staff must review the Phase I Environmental Site Assessment (ESA) submitted by
415 the Lender and will make a site visit ~~for new construction and substantial rehabilitation~~
416 ~~projects. Other projects may be visited~~ on a case by case basis. A site visit will help
417 validate the ~~environmental and site~~ information provided in the ~~Phase I ESA Lender~~
418 ~~Narrative, and it is useful for evaluating other environmental factors. The HUD reviewer~~
419 ~~will sign in the completed review in HEROS - Form HUD-4128 as the preparer, and the~~
420 ~~form will be co-signed by a HUD approving official, consistent with the then-current~~
421 ~~Delegation of Authority Environmental Report.~~
- 422
- 423 4. HUD staff must certify the completed environmental review in HEROS as the Preparer,
424 and a HUD approving official, consistent with the then-current Delegation of Authority,
425 must approve and certify the HEROS environmental review prior to HUD's issuance of a
426 Firm Commitment.
- 427
- 428 5. HUD staff should refer to the specific directions and guidance contained in Section
429 7. ~~Regulation 3.Q and 7.3.N as applicable for projects that involve remediation and/or~~
430 ~~monitoring.~~
- 431
- 432 3.6. Regulations at 24 CFR 50.32 ~~requires require~~ that a NEPA Environmental Assessment-
433 ~~level reviews for a project projects~~ with more than 200 dwelling units or 200 beds be sent
434 for review and comment to the ~~appropriate Regional or Field Environmental Officer~~
435 ~~(REO/FEO) in whose jurisdiction the project is located. The REO/FEO must also review~~
436 ~~and comment on Environmental Assessment-level new construction projects or projects~~
437 ~~that convert land uses to residential when noise is in the unacceptable noise zone (above~~
438 ~~75 DNL (a weighted day-night average sound level)). Neither requirement applies to~~
439 ~~categorically excluded projects. Projects such as Section 232/223(f), which are deemed~~

440 categorically excluded from NEPA but require compliance with the Federal laws and
441 authorities cited in 24 CFR 50.4 pursuant to 24 CFR 50.20(a), do not require review and
442 comment from the [REO/FEO](#). However, it is recommended that [REO/FEOs](#) be given the
443 option to review and comment when special analysis is required under such laws and
444 authorities: [listed at §50.4 and 50.3\(i\)](#).

445
446 ~~4. Completed environmental records must be available for the FEO to review. Up to ten~~
447 ~~percent (10%) of files may be reviewed in any given year.~~

448 7. Housing staff are strongly encouraged to consult with the REO/FEO (regardless of the
449 number of units) for CEST and EA projects that:

450 a. Are located on or adjacent to a designated Superfund Site or a Formerly Used Defense
451 Site (FUD).

452
453 b. Have an unresolved contamination issue with the potential to affect the health and
454 safety of occupants. For example:

- 455
 - 456 • An ASTM Phase I or Phase II Environmental Site Assessment (ESA) indicates a
457 release or threat of release of hazardous substances or petroleum products but
458 does not identify a Recognized Environmental Condition (REC);

459 There is current or proposed

460 ~~5. As part of its environmental review responsibilities, HUD may require additional~~
461 ~~environmental material from a Lender, such as a Phase II ESA, even when the Lender~~
462 ~~might not believe that such additional environmental material is necessary.~~

- 463
 - 464 ~~• HUD staff should refer to the specific directions and guidance contained in~~
465 ~~Section 7.4 for projects that involve remediation and/, [mitigation](#) or monitoring at~~
466 ~~the site; or~~

- 467
 - 468 ~~• Issues are raised in the Phase I or Phase II ESA but not addressed in the~~
469 ~~[mitigation plan](#).~~

470 c. Are located on or directly adjacent to a parcel with a floodway.

471 C. When to Submit Required Exhibits to Resolve Environmental Issues:

- 472
473 1. Lenders are required to submit all the exhibits necessary to resolve any
474 environmental issues with the Firm Commitment application [and in the HEROS](#)
475 [report](#).
- 476
477 2. Any environmental problems present at the site will require a discussion of
478 impacts to human health and appropriate mitigation measures. The Lender must
479 provide mitigation plans for those environmental ~~problems~~[issues](#) when the
480 application for a Firm Commitment is submitted. Remediation of site
481 contamination is discussed in Section 7.3.Q of this chapter, and requires that
482 remediation plans and LSTF approval of those plans be submitted with the
483 application for Firm Commitment. The implementation of mitigation and
484 remediation plans may, with HUD approval, continue throughout the construction
485 period: [for projects with initial and final loan closings](#). HUD will review the

486 Lender’s plan and make it a condition of the Firm Commitment, if HUD considers
487 the plan acceptable. This would include any plans for remediation of site
488 contamination, wetlands impacts, noise impacts, historic preservation, and/or
489 floodplain management issues. [See the applicable guidance for each of these](#)
490 [topics in Section 7.3 below.](#)

- 491
492 3. Removal or containment of lead-based paint or asbestos may continue beyond initial
493 and final closing if HUD approves.
494

495 **D. Qualifications of Professionals:**
496

- 497 1. The Borrower may select the professionals to be used to prepare the Phase I ESA and the
498 other required environmental information ~~discussed in Sections 7.5, 7.6 and 7.7~~, but the
499 Lender must verify that the professionals used are qualified for their assigned
500 responsibilities. It is recommended that the professionals have prior HUD experience,
501 since the analyses of some related laws and authorities are unique to HUD.
502
- 503 2. The environmental professional preparing the Phase I ESA must meet all of the
504 qualification requirements of Appendix X2 of ASTM E1527-13 ~~(or similar section of the~~
505 ~~(most recent HUD-approved~~ edition). Additionally, the environmental professional must
506 meet the license/certification, educational, and experiential requirements of Section
507 X.2.1.1. (2)(i), (ii), or (iii), of Appendix X2 of ASTM E1527-13 ~~(or similar section of the~~
508 ~~(most recent HUD-approved~~ edition). The environmental professional must describe how
509 he or she meets these qualifications in the Qualification(s) of Environmental
510 Professional(s) Section of the Phase I ESA. For “relevant experience” such discussion
511 must be specific as to how the requirements of Section X.2.2 of Appendix X2 of ASTM
512 E1527-13 ~~(or similar section of the~~ (most recent [HUD-approved](#) edition) have been met.
513 The Phase I ESA must clearly indicate that HUD is an authorized user of the report.
514
- 515 3. When a Phase II study is conducted, the “Phase II Assessor” must meet all of the
516 qualification requirements of Section 3.1.33 of ASTM E1903-11 (or similar section of the
517 most recent edition).
518
- 519 4. Other professionals may be required to evaluate technical areas, such as asbestos, radon,
520 noise, fire safety, wetlands, flooding, historic preservation or soil stability conditions. The
521 Lender should verify that these technicians are also qualified. When these professionals
522 are required, the Lender may contract for those services if the Borrower has not done so.
523

524 ~~E.—Consulting with ORCF: Lenders are encouraged to consult early with ORCF on~~
525 ~~environmental requirements. Local conditions and interagency relations affecting~~
526 ~~environmental review requirements differ from state to state. **prior to application:** For~~
527 ~~instance, coastal zone management requirements are not applicable in most states, but in~~
528 ~~states where they are applicable, compliance procedures differ. In some states, a letter from~~
529 ~~the state coastal zone management agency for projects in the coastal zone is required. In~~
530 ~~others, alternative review procedures make this unnecessary.~~
531

532 F.E. that have obtained an FHA Number, ORCF is available to review answer questions on key
533 environmental issues prior to application submission via its Lean Thinking email box-
534 Lenders may submit questions on unusual site conditions, such as soil contamination,
535 explosive hazards, unacceptable noise levels, fall hazards, etc., to at
536 LeanThinking@HUD.gov. When seeking guidance, provide the project's FHA Number,
537 street address, type of project (e.g., Section 232 New Construction, 232/223(f), 241(a)) and a
538 description of the project in its current condition and as proposed. Include a site plan/survey
539 when available, and other pertinent documentation, such as a description of proposed
540 construction, repairs, site work and alterations. All communication with Lean Thinking must
541 be included as a clearly identified exhibit in the application submission to ORCF.

542
543 When submitting the mortgage insurance application, please include the environmental
544 communication that was sent to Lean Thinking and any Lean Thinking response in the Third-
545 Party Consultant's Environmental Report (including HEROS), and in the corresponding
546 exhibit in Section 2 of the application (for example: Tribal information, which is currently
547 Application Exhibit 2-6, must also include any Lean Thinking email correspondence
548 regarding Tribal Consultation). The environmental section of the Lender Narrative must also
549 describe any early environmental correspondence with Lean Thinking.

7.3

Contamination Analysis: **Phase I and Phase II Environmental Site** **Assessments and Remediation Review** **Requirements**

552
553 The Lender or its environmental consultant must provide information in HEROS regarding
554 compliance with NEPA, the laws and authorities listed at 24 CFR 50.4, 24 CFR 50.3(i), and the
555 HUD-specific requirements described herein, as applicable, as well as any issues that might
556 affect the acceptability of the project, including any issues of compliance with state
557 environmental laws.

558
559 The existence of mold in a structure is not a topic that is covered during the environmental
560 review. It is addressed in the Project Capital Needs Assessment (PCNA) as part of the building
561 inspection. Lenders and ORCF underwriters will refer to the PCNA to determine if mold
562 assessment and remediation is required.

563
564 The issues discussed below must be analyzed by HUD staff during their preparation of the
565 environmental review in HEROS. Guidance by which the Lender can assist HUD is provided.
566 These brief descriptions are not substitutes for the requirements in the applicable statutes,
567 regulations, Executive Orders, notices and handbooks.

568
569 The following environmental issues must be addressed in HEROS and in the Lender Narrative
570 when applicable:

571
572 **A. Airport Hazards: Runway Clear Zone, Runway Protection Zones, Clear Zone, or Accident**
573 **Potential Zone (24 CFR 50.4(k)):**
574

- 575 **1. HUD standards regarding the acceptability of property located in Runway Clear Zones**
576 **(also known as Runway Protection Zones), Clear Zones, and Accident Potential Zones**
577 **are found at 24 CFR Part 51 Subpart D. [An Accident Potential Zone \(Zones I and II\)](#) is**
578 **an area at a military airfield that is beyond the Clear Zone.**
579
580 **2. Construction or major rehabilitation of any property located within a Clear Zone is**
581 **prohibited. Acquisition, refinance, and minor rehabilitation which do not extend the**
582 **physical or economic life of projects within Clear Zones are allowed, with notification**
583 **requirements for acquisition transactions described below. HUD must determine that**
584 **projects located in Accident Potential Zones are generally consistent with Department of**
585 **Defense land use compatibility guidelines for Accident Potential Zones.**
586
587 **3. In acquisition transactions, HUD, as part of its environmental review for an existing**
588 **property, shall advise the Lender, who will inform the Borrower purchasing the**
589 **property, that the property is in a Runway Protection Zone or Clear Zone.**
590 **Furthermore, it shall be explained what the implications of such a location are,**
591 **including the possibility that the airport operator will acquire the parcel. The buyer**
592 **must sign a statement acknowledging receipt of this information. HUD may reject**
593 **applications for mortgage insurance on an existing property within a Runway**
594 **Protection Zone or Clear Zone because of the possibility that the property may be**
595 **acquired at a later date by the airport operator.**
596

597 **B. Air Quality (40 CFR Parts 6, 51 and 93)**
598

- 599 **1. The Clean Air Act was implemented to remedy the damaging effects that poor air quality**
600 **can have on human health and the environment. The Clean Air Act is administered by the**
601 **U.S. Environmental Protection Agency (EPA), which sets National Ambient Air Quality**
602 **Standards (NAAQS). These are limits on certain “criteria” air pollutants, including limits**
603 **on how much of these pollutants can be in the air anywhere in the United States.**
604 **Geographic areas that are in compliance with standards are called “attainment areas,”**
605 **while areas that do not meet standards are called “nonattainment” areas. The location of**
606 **areas designated by U.S. EPA as polluted under the Clean Air Act is documented in the**
607 **U.S. EPA’s Nonattainment Areas for Criteria Pollutants (Green Book)**
608 **(<https://www.epa.gov/green-book>).**
609
610 **2. In addition to the EPA, the Clean Air Act is administered by state, tribal, and local**
611 **agencies, which are responsible for developing local solutions to air quality problems.**
612 **States must develop State Implementation Plans (SIPs) to regulate their state air quality.**
613 **In order to show compliance with the NAAQS, projects funded by HUD must**
614 **demonstrate that they conform to the appropriate SIP.**
615

- 616 3. For new construction projects located in a nonattainment or maintenance area, HUD must
617 determine if the estimated emission levels exceed de minimis emissions levels for the
618 nonattainment or maintenance level pollutants. If the estimated emissions levels exceed
619 de minimis levels, HUD must determine whether the project can be brought into
620 compliance with the State Implementation Plan through modification or mitigation.
621
- 622 4. The HEROS website includes an FAQ on completing the Clean Air Act Screen in
623 HEROS. This can be found on the HUD Exchange website which can be accessed from
624 the ORCF Environmental Resource page.
625
- 626 5. Additional information about complying with the Clean Air Act can be found on the
627 HUD Exchange website which can be accessed from the ORCF Environmental Resource
628 page.
629

630 C. Asbestos

- 631
- 632 1. While specific uses of asbestos are technically allowed today, several uses of asbestos
633 were banned starting in the early 1970s, and many commercial enterprises stopped
634 installing asbestos products as of the late 1970s. In 1989, the U.S. Environmental
635 Protection Agency instituted a partial ban on the manufacture, import, processing and
636 distribution of some asbestos containing products. Some of the more common examples
637 of asbestos containing materials include insulation, fireproofing, sprayed-on finishes
638 such as acoustical ceiling texture, joint compound, ceiling tiles, vinyl floor tile and the mastic
639 or caulk used to fix the tile in place, siding, and roofing, although they can be found in many
640 construction material types installed before 1989 that are still in use today. These asbestos-
641 containing materials (ACM) can be found in both friable and non-friable states. Friable material
642 is a material that is easily crumbled or powdered by moderate (hand) pressure. For any
643 proposed project site containing structures built before 1989, asbestos must be discussed
644 in the Lender Narrative and HEROS, and an asbestos survey per 7.3.C.4 is required.
645
- 646 2. Asbestos studies and information must be included in the HEROS Environmental Report,
647 in accordance with HUD’s environmental policy articulated at 24 CFR 50.3(i) which
648 states that all properties proposed for use in HUD programs be free of hazardous
649 materials, contamination, toxic chemicals and gasses, and radioactive substances, where a
650 hazard could affect the health and safety of occupants or conflict with the intended
651 utilization of the property.
652
- 653 3. Knowledge of the location, quantity, type and condition of ACM in the facilities,
654 building, and, if applicable, the surrounding area of the property, is critical for proper
655 management of the hazard. These factors will determine if ACM will need to be
656 selectively removed for maintenance, removed prior to renovation, removed prior to
657 demolition, left in place and encapsulated or enclosed with procedures outlined in the
658 Operation & Maintenance (O&M) Program, or a combination of these strategies.
659
- 660 4. Any structures or ancillary facilities on the site built in whole or in part before 1989 must
661 be assessed as per the ASTM E 2356-18 (or most recent version), “Standard Practice for

662 Comprehensive Building Asbestos Surveys” or the city, county, or state requirements if
663 they exceed the ASTM E2356-18 standards. For structures built in 1989 or later, HUD
664 requires projects to report any knowledge of asbestos use at the property and to verify the
665 composition of roofing materials, either through direct documentation (e.g. receipts or
666 labels) or through sampling and analysis. If the ASTM standard allows the survey to
667 presume Asbestos Containing Materials (ACM) (for example in a baseline survey), then
668 such presumption is also acceptable; however, if a project presumes ACM in the roofing,
669 then the project must have an O+M plan. This plan could be limited to actions that impact
670 the roofs where ACM is present or presumed present.

- 671
- 672 a. At minimum, structures built before 1989 must undergo a Baseline Survey, or stricter
673 standard if applicable in the jurisdiction, to determine if ACMs are present or
674 suspected to be present at the site. In those cases where suspect asbestos is identified,
675 it should either be assumed to be ACM or confirmatory testing should be required.
- 676 b. The ASTM E 2356-18 Baseline Survey is a building-wide or facility-wide inspection
677 that provides a general sense of the overall location, type, quantity, and condition of
678 asbestos-containing materials present. It is thorough in that most accessible functional
679 spaces are inspected, and that bulk samples are taken of suspect materials observed.
680 The baseline survey provides information for long-term management of ACM and
681 prioritization of response actions. The presence of asbestos in suspect materials may
682 be assumed or presumed in some cases without bulk samples being taken or analyzed.
683 In a baseline survey, destructive testing is minimized, e.g. concealed spaces are not
684 normally breached.
- 685 c. Any structures or ancillary facilities built before 1989 that are planned to be
686 demolished, or planned to undergo alterations or renovations involving demolition,
687 must complete a building asbestos survey by a qualified asbestos inspector performed
688 pursuant to the “Pre-Construction Survey” requirements of ASTM E 2356-18 or
689 stricter standards if applicable in the jurisdiction. At minimum, the survey must
690 include all spaces within the limits of construction, as well as adjacent areas where
691 ACM may be disturbed by construction activities.

692

693 The Pre-Construction Survey is performed in anticipation of a demolition or
694 rehabilitation project. It requires destructive testing if concealed spaces are to be
695 breached during construction. The Pre-Construction Survey satisfies the EPA
696 NESHAP requirements for renovation or demolition to “thoroughly inspect the
697 affected facility.”

- 698 d. An accredited asbestos professional will determine whether projects that complete a
699 Pre-Construction Survey must also complete a Baseline Survey. The asbestos
700 professional will also determine if the project requires additional surveys beyond the
701 minimum HUD requirements.
- 702 e. The practices outlined in the ASTM E 2356-18 apply to all activities (unless
703 following a stricter local, state or tribal standard) and all surveys or sample analysis
704 must be completed by a licensed/accredited professional and laboratory.
- 705 i. Asbestos professionals must be accredited by EPA or an EPA approved state
706 program under the Model Accreditation Plan. The professional must also be

- 707 licensed by the state, city, or local jurisdiction in which the work is being
708 conducted if the jurisdiction has this requirement.
- 709 ii. Transmission electron microscopy (TEM) bulk sample analyses may be necessary
710 for samples originating from jurisdictions that require this analysis. Additionally,
711 TEM analyses is commonly used to verify a reported result of no asbestos
712 detected for non-friable organically bound material (NOB) and other non-friable
713 materials by polarized light microscopy (PLM)
- 714 f. If prior surveys for ACM have been completed within the building, facilities, and
715 project site by a licensed professional and accredited asbestos laboratory, HUD may
716 accept the earlier documentation. If there is question about its validity, HUD will
717 request a determination by an accredited asbestos professional. The determination of
718 the applicability and usability of prior ACM surveys will be based upon the
719 determination of the current licensed/credentialed asbestos professional or by HUD.
720
- 721 5. If ACM or suspect ACM is identified at a facility, HUD requires a response action to
722 address the risk. Response actions may include complete removal, limited
723 removal/repair, encapsulation, enclosure or management under an Operations and
724 Maintenance (O&M) Program, or a combination of these, as recommended by an
725 accredited asbestos professional. The following are examples for when certain response
726 actions may be appropriate, but they do not encompass all response actions.
727
- 728 a. Removal
- 729 i. Damaged friable materials
- 730 ii. Friable materials in good condition with high potential for disturbance (e.g.,
731 accessible pipe or tank insulation, ceiling tiles where air exchanges occur in plenum
732 above, ceiling tiles that are required to be moved to access mechanical equipment
733 or piping on a routine basis, etc.)
- 734
- 735 b. Limited removal/repair, encapsulation or enclosure
- 736 i. Damaged non-friable materials (limited removal/repair)
- 737 ii. Limited damage to ceiling texture (limited removal/repair)
- 738 iii. More extensive wall and/or ceiling texture damage or highly friable texture
- 739 iv. Pipe insulation with limited damage but with limited potential for
740 disturbance/impact (enclosure or removal)
- 741
- 742 c. O&M Plan
- 743 i. Non-friable materials in good condition
- 744 ii. Joint compound or wall and ceiling textures in good condition
- 745 iii. Adhesive ceiling tiles with no real potential for disturbance
- 746 iv. Friable pipe insulation materials in mechanical areas in good condition with limited
747 potential for disturbance/impact by routine maintenance activities
748
- 749 6. The asbestos survey(s), and O&M plan when applicable, must be submitted with the
750 application and included in the HEROS Environmental Report. If the survey
751 identifies asbestos or asbestos is assumed, the application must include a plan from an
752 accredited asbestos professional with an appropriate mix of asbestos abatement and

753 an asbestos O&M plan in accordance with EPA guidance (for example, “How to Develop
754 and Maintain a Building Asbestos Operations and Maintenance (O&M) Program” is
755 available on the EPA website), or any applicable LSTF requirements if more protective
756 of health and the environment.

757
758 7. The asbestos survey report(s), O&M plans and updated records if materials are removed
759 or identified subsequently, must be maintained by the operator and owner(s) of the
760 property and made available to appropriate staff.

761
762 8. Other than for asbestos abatement on a structure that will be completely demolished, the
763 cost of any asbestos abatement activities may be included in the proposed mortgage loan,
764 with HUD approval. If required, appropriate asbestos remediation can be indicated as a
765 required Firm Commitment condition if HUD approves.

766
767 9. All asbestos abatement shall be done in accordance with EPA requirements for air
768 pollution prevention pursuant to 40 CFR Part 61 subpart M, especially 40 CFR 61.145,
769 and with OSHA requirements for Worker Protection, pursuant to 29 CFR 1926.1101,
770 asbestos safety and health regulations for construction. Any LSTF asbestos abatement
771 and worker protection rules also apply. All asbestos abatement must be performed by a
772 qualified asbestos abatement contractor with a supervisor (‘competent person’) trained in
773 accordance with OSHA and, if applicable, EPA standards, and workers trained in
774 accordance with the OSHA standard.

775
776 **D. Coastal Barrier Resources (24 CFR 50.4(c)(1)):** Under the Coastal Barriers Resources Act
777 cited in 24 CFR 50.4(c), HUD is prohibited from insuring a project located within designated
778 coastal barriers of the Atlantic Ocean, Gulf of Mexico, or the Great Lakes, known as Coastal
779 Barrier Resources System (CBRS) units, and shown on associated Fish and Wildlife Service
780 maps (see the Official CBRS Act webpage at [https://www.fws.gov/program/coastal-barrier-](https://www.fws.gov/program/coastal-barrier-resources-act/maps-and-data)
781 resources-act/maps-and-data for instructions on obtaining CBRS maps and data). A project
782 located within a CBRS unit, or that includes a facility (such as a water main or a utility
783 conduit) leading to a to a CBRS unit, will not be eligible for application processing.
784 Additional information can be found at:
785 [https://www.hudexchange.info/programs/environmental-review/federal-related-laws-and-](https://www.hudexchange.info/programs/environmental-review/federal-related-laws-and-authorities/)
786 [authorities/](https://www.hudexchange.info/programs/environmental-review/federal-related-laws-and-authorities/)

787
788 **E. Coastal Zone Management (24 CFR 50.4(c)(2)):** Projects located within a state’s coastal
789 management zone must be found consistent with the approved state Coastal Zone
790 Management program. In many states, HUD will require a letter from the State Coastal Zone
791 Management Agency confirming consistency with the approved program. Lenders should be
792 aware of the extent of coastal management zones in coastal states and should contact the
793 HUD Field Environmental Officer when examining a proposal in a coastal zone. For
794 additional information, see the ORCF Environmental Resources webpage for access to
795 environmental topics on the HUD Exchange website.

796
797 **F. Endangered Species (24 CFR 50.4(e)):**

798 1. Under Section 7 of the Endangered Species Act (ESA), HUD must consult with the U.S.

799 Fish and Wildlife Service (FWS) and/or, the National Marine Fisheries Service (NMFS),
800 whenever a proposal may affect an endangered or threatened species or its habitat. The
801 ESA is jointly administered by the Secretaries of the Interior and Commerce. The FWS is
802 responsible for terrestrial and freshwater species and the NMFS is responsible for marine
803 species and anadromous fish, such as salmon. Some projects, especially those in the Pacific
804 Northwest, may need to consult with both agencies.

805
806 2. A required consultation should be completed for any site within the critical habitat (as
807 defined in 50 CFR Part 17 and Part 226) of a listed species, but consultation may also be
808 required even if no critical habitat is present. As of 2015, critical habitat had been
809 designated for a little less than 50% of threatened and endangered species. The lack of
810 critical habitat is not an indicator of the presence or lack of presence of a listed species.
811

812 3. In areas where impacts on endangered or threatened species are a concern, all appropriate
813 information and the results of research regarding possible impacts of the project should be
814 provided to HUD as early as possible. Lenders are encouraged to contact Lean Thinking
815 ahead of application when Endangered Species review will be required.
816

817 4. The information that is provided to HUD and entered in the HEROS Environmental Report
818 should include review of published information, including but not limited to information
819 on the Services' websites regarding the possible presence and associated critical habitat of
820 any listed species in the vicinity of the proposal (for example, the Information for Planning
821 and Consultation (iPaC) tool is available on the FWS website). Furthermore, if a proposal
822 is in an area of potential impacts on a listed species or its critical habitat, any possible
823 associated impacts caused by the proposal should be discussed in the HEROS
824 Environmental Report. Lenders and third-party consultants can request species lists,
825 prepare Biological Assessments for HUD's review, and provide the information needed for
826 consultation, but HUD must initiate formal and informal consultation with the Services.
827

828 5. If the project involves a type of activity that could affect endangered/threatened species
829 or their habitat, HUD must make a determination of effect, which may be "no effect",
830 "may affect, not likely to adversely affect" or "may affect, likely to adversely affect".

831 a. HUD must document a "no effect" determination with scientific information or a
832 regional letter or memorandum but does not need to consult with the Services on
833 projects it determines will have no effect. The Services may have a regional letter,
834 memorandum or other document that allows HUD to make a No Effect
835 determination for projects that meet specific criteria.

836 b. HUD must seek concurrence of the Services on any "may affect, not likely to
837 adversely affect" determination and associated mitigation measures.

838 c. HUD must initiate formal consultation under Section 7 of the Endangered Species
839 Act for a "may affect, likely to adversely affect" determination.
840

841 6. For all effect determinations, the Lender may be required to obtain special studies such as

842 habitat assessments, surveys or biological assessments at the Borrower's cost.

- 843
- 844 7. Consultation under Section 7 of the Endangered Species Act may result in more stringent
- 845 conservation measures than would otherwise be imposed.

846

847 **G. Environmental Justice (24 CFR 50.4(l)):**

- 848 1. Executive Order 12898, Federal Actions to Address Environmental Justice in
- 849 Minority Populations and Low-Income Populations, as amended by Executive Order
- 850 14008 and Executive Order 14096, requires that federal actions not result in
- 851 disproportionately high and adverse health or environmental effects on underserved
- 852 and overburdened communities (see Executive Orders 14008 and 14096).
- 853 2. When a project impacts an underseved and overburdened community, and there are
- 854 unmitigated adverse environmental impacts such as a location in a floodplain or a
- 855 noise impacted site, HUD will perform the necessary environmental justice analysis
- 856 before determining the acceptability of the project. A project that will receive a Low-
- 857 Income Housing Tax Credit and has unmitigated adverse environmental impacts is an
- 858 example of when environmental justice concerns should be evaluated.
- 859 3. HUD will request information and ensure meaningful community participation to
- 860 complete this analysis and will advise the Lender of any Environmental
- 861 Justice concerns including recommendations on their resolution. Possible resolutions
- 862 include to modify the project to eliminate or reduce adverse effects, as informed by
- 863 the community participation process.
- 864 4. Additional information on complying with Environmental Justice, including
- 865 associated civil rights laws and authorities in the notification and involvement of
- 866 impacted communitis in addressing unmitigated adverse environmental impacts, can
- 867 be found on the HUD Exchange website.

868

869 **H. Explosive/Flammable Hazards (24 CFR 50.4(k)):** HUD will not insure a property where

870 structures and residents will be exposed to unacceptable risks posed by proximity to

871 explosive or flammable hazards.

- 872
- 873 1. For new construction projects, rehabilitation projects where residential density is
- 874 increased, projects where there is a conversion from non-residential to residential use, or
- 875 projects where a vacant building is made habitable:
- 876
- 877 a. Aboveground storage facilities with explosive or flammable material contents must
- 878 comply with the Acceptable Separation Distance (ASD) standards at 24 CFR Part 51
- 879 Subpart C, as amended by the final rule (85 FR4225, January 24, 2020) permitting the
- 880 application of National Fire Protection Association (NFPA) Code 58, 2017 edition, in
- 881 lieu of HUD ASD standards for residential propane tanks. Analysis of existing or
- 882 planned explosive or flammable aboveground hazards within one mile of these types
- 883 of projects must be submitted by the Lender and reviewed by HUD as part of the
- 884 HEROS review, as per the guidance on the HUD Exchange, which is accessible from
- 885 the ORCF Environmental Resources page.
- 886

887 [For propane aboveground storage tanks \(ASTs\) between 125 gallons and 1,000](#)
888 [gallons water capacity, and meeting the NFPA 58 exemption, lenders must submit](#)
889 [documentation that the specific tanks meet NFPA Code 58 \(2017\) requirements,](#)
890 [including separation distance. \(See Section 7.3.H.5 below for documentation](#)
891 [requirements.\) Propane ASTs under 125 gallons capacity are exempt from the](#)
892 [separation distance if the Lender documents that they meet all other 2017 NFPA](#)
893 [Code 58 requirements. Guidance on NFPA 58 compliance and a sample](#)
894 [conformance memo are available on the ORCF Environmental Resources Page.](#)
895

896 [b. If a plan is agreed upon with HUD before the issuance of a Firm Commitment, these](#)
897 [hazards may be mitigated during the construction period prior to the final loan](#)
898 [closing, if the work can be done on the subject property. In cases where off-site](#)
899 [mitigation is required, the remediation must be completed prior to initial closing.](#)
900

901 [2. For existing projects to be refinanced or purchased that do not involve an increase in](#)
902 [residential density, HUD will substantively evaluate the risks associated with proximity](#)
903 [to hazardous facilities. HUD reviews of such projects will consider the potential danger](#)
904 [presented by existing and proposed liquid fuel and gas storage tanks based upon available](#)
905 [information, and may require mitigation.](#)

906 [a. Whenever stationary ASTs containing liquid fuel \(over 100 gallons in capacity\) or](#)
907 [pressurized gas over 125 gallons in water capacity \(other than exempt LPG/propane tanks](#)
908 [that do not exceed 1,000 gallons in capacity with documentation of compliance with](#)
909 [NFPA 58 version 2017\), exist on site or on an adjacent site that could impact the HUD](#)
910 [project, a conformance letter from the governing Fire Department/District must be](#)
911 [requested. The letter must specifically address the safety of the AST\(s\). Correspondence](#)
912 [with the fire department must be included in the application submission.](#)

913 [i. In cases where safety letters were requested but cannot be obtained for existing](#)
914 [ASTs, or where new ASTs are being added, an acceptable separation distance](#)
915 [\(ASD\) calculation must be included in the application.](#)

916 [ii. For propane aboveground storage tanks \(ASTs\) between 125 gallons and 1,000](#)
917 [gallons water capacity, and meeting the NFPA 58 exemption, lenders must submit](#)
918 [documentation that the specific tanks meet NFPA Code 58 \(2017\) requirements,](#)
919 [including separation distance. \(See Section 7.3.H.5 below for documentation](#)
920 [requirements.\) Propane ASTs under 125 gallons capacity are exempt from the](#)
921 [separation distance if the Lender documents that they meet all other 2017 NFPA](#)
922 [Code 58 requirements.](#)
923

924 [3. A useful tool for calculating ASDs can be found on the ORCF Environmental Resources](#)
925 [Page.](#)
926

927 [4. If a barrier will be constructed as hazard mitigation, HUD's Barrier Design Guidance](#)
928 [\(Guidebook 6600.G\) for flammable/explosive hazards mitigation is available on the](#)
929 [ORCF Environmental Resources Page. Only a licensed professional engineer \(civil or](#)
930 [structural\) should design and oversee the construction of mitigation barriers.](#)
931

932 5. Compliance with NFPA 58: Acceptable documentation that a propane AST not
933 exceeding 1,000 gallons capacity complies with NFPA 58 (2017) and is excluded from
934 coverage under 24 CFR part 51 Subpart C must be provided. (Note: Propane ASTs under
935 125 gallons capacity are exempt from ASD requirements if they comply with NFPA 58
936 (2017)):

937
938 a. In jurisdictions where NFPA 58 (2017) has been adopted into law, HUD relies on
939 enforcement by the jurisdiction. Therefore, all propane tanks of 1,000 gallons or less
940 in those locations are excluded from compliance with HUD's ASD requirements. In
941 these jurisdictions, citation to the NFPA website (which is accessible from the ORCF
942 Environmental Resources page) referencing the applicable state or local code is
943 sufficient to document that any tank in that jurisdiction containing propane of 1,000
944 gallons or less water volume is excepted from coverage under 24 CFR part 51, subpart
945 C.

946 b. In areas where the jurisdiction has not adopted NFPA 58 (2017) into law, an individual
947 propane tank may still comply with that policy based on inspection and maintenance
948 of the tank by the propane distributor, or another individual qualified to inspect propane
949 tanks*. To document that a propane tank of 1,000 gallons or less capacity is excluded
950 from coverage under 24 CFR 51 Subpart C in those locations, provide documentation
951 that the AST is located at an acceptable setback distance from buildings and property
952 lines (under NFPA 58 2017, tanks between 125 and 500 gallons require a setback of
953 10 feet from buildings or property lines, while tanks between 501 and 1,000 gallons
954 have a setback of 25 feet) and one of the following:

- 955 • The gas supplier or tank owner/operator has policies in place that utilize the 2017
956 NFPA Code 58 for inspection and filling (provide records from the gas supplier or
957 tank owner/operator documenting this policy); or
- 958 • The local Authority Having Jurisdiction (AHJ) utilizes and specifies current NFPA
959 58 in tank certification and permitting even though the 2017 version is not formally
960 adopted statewide (provide records or communication from the local AHJ); or
- 961 • A qualified person, such as an engineer who is familiar with NFPA 58 requirements
962 or a propane industry professional who has completed training to fill and handle
963 propane tanks per NFPA 58, has inspected the tank for the express purpose of
964 documenting compliance with NFPA 58 (2017) in support of the HUD
965 environmental review. The NFPA requires documented training on propane
966 handling procedures, with refresher training every three years, for anyone who
967 dispenses propane. (Provide documentation of the individual making the
968 determination, their professional qualification, and date of the determination. A
969 sample letter that may be used as a template is available on the ORCF
970 Environmental Resources page).

971 *Note: State departments of commerce may also be used as sources both to verify
972 current codes and to identify qualified propane inspectors.
973

974 I. Farmlands Protection (24 CFR 50.4(j)): The purpose of the Farmland Protection Policy Act

975 [is to minimize the effect of Federal programs on the unnecessary and irreversible conversion](#)
976 [of important farmland to nonagricultural uses. Important Farmland includes prime farmland,](#)
977 [unique farmland, and/or land of statewide or local importance. Farmland subject to Farmland](#)
978 [Protection Policy Act requirements does not have to be currently used for cropland.](#)

979
980 [For new construction, HUD must consider whether the project will impact important farmland.](#)
981 [There are a few exemptions to the Farmland Protection Policy Act, including one for land](#)
982 [already in or committed to urban development. USDA/NRCS regulations contained at 7 CFR](#)
983 [658.2 define “already in urban development” as land with a density of 30 structures per 40-](#)
984 [acre area; lands identified as “urbanized area” \(UA\) on the Census Bureau Map or as urban](#)
985 [area mapped with a “tint overprint” on USGS topographical maps; or as “urban-built-up” on](#)
986 [the USDA Important Farmland Maps. Note that land “zoned” for development, i.e. non-](#)
987 [agricultural use, does not exempt a project from compliance with the FPPA. This requirement](#)
988 [applies only to new construction activities and the acquisition of undeveloped land.](#)

989 [Additional information about farmland, including consulting with the USDA Natural](#)
990 [Resources Conservation Service, can be found on the ORCF Environmental Resources Page.](#)

991
992 **J. [Flood Insurance](#) (24 CFR 50.4(b)(1)):** [In accordance with 24 CFR 50.4\(b\)\(1\), and as](#)
993 [described in Production, Chapter 14, Section 7.H, flood insurance is required when any](#)
994 [portion of a structure is located in a 100-year floodplain.](#)

995 [Flood insurance is property insurance that covers damages caused by flooding, ranging from](#)
996 [the need for full replacement to repairs such as replacing flooring and walls. This type of](#)
997 [insurance is typically not included in a standard property insurance policy. Flooding can](#)
998 [cause a great deal of damage. Even if it does not destroy the property, it can fill the property](#)
999 [with mud, silt, and other debris, and the moisture from the flooding may lead to rot, mold,](#)
1000 [mildew, and other problems. Many items may need to be rebuilt or replaced, forcing](#)
1001 [residents to stay in temporary facilities while repair work is done. Flood insurance helps to](#)
1002 [mitigate these costs.](#)

1003
1004 [1. A project thislocated in the 100-year flood zone, also known as the Special Flood Hazard](#)
1005 [Area \(SFHA\), has a 26% chance of flooding over the life of a 30-year mortgage. A project](#)
1006 [located in the moderate flood hazard zone \(500-year floodplain\) has a 6% chance of](#)
1007 [flooding over the life of a 30-year mortgage.](#)

1008 [2. All section 232 mortgage insurance applications must include a completed Standard Flood](#)
1009 [Hazard Determination Form \(available on the ORCF Environmental Resources webpage\)](#)
1010 [prepared by a qualified third-party flood-zone determination firm. An experienced third-](#)
1011 [party provider would be capable of providing Life-of-Loan coverage in accordance with](#)
1012 [the Flood Insurance requirements in Chapter 14.](#)

1013 [3. Any insurable structure that is located within a FEMA mapped SFHA is required to carry](#)
1014 [flood insurance under the National Flood Insurance Program for the term of the loan. See](#)
1015 [Production, Chapter 14, Section 7.H for further information and ORCF flood insurance](#)
1016 [requirements.](#)

1017 [4. HUD will also require flood insurance on any building where the Advisory Base Flood](#)

1018 Elevations (ABFE) or preliminary FEMA Flood Insurance Rate Map (FIRM) indicates it
1019 will be in a Special Flood Hazard Area. Additionally, Housing Approving Officials have
1020 the discretion to require flood insurance for buildings located:

- 1021 a. In the moderate flood hazard area (FEMA zones B or X (shaded)),
1022 b. On a parcel that includes a SFHA (including those considered incidental for
1023 floodplain management), in coastal areas not in a SFHA but subject to tidal flooding,
1024 tsunami, wave action or storm surge, including Limit of Moderate Wave Action
1025 (LiMWA) areas, and where topography or past flooding create a high risk for flood
1026 events.

1027 5. Tenant Notification: All new and renewal leases for projects where HUD has required
1028 flood insurance must contain acknowledgements signed by the residents indicating that
1029 they have been advised that the property is in a floodplain and flood insurance is
1030 available for their personal property.

1031 6. Because conditions may change over time, the status of a flood zone may change. Life of
1032 Loan Monitoring for Flood Insurance is required, in accordance with Section II, Chapter
1033 14, Section 7.H.

1034 **K. Floodplain Management (24 CFR 50.4(b)(2), 24 CFR Part 55):**

1035 *Note: On April 23, 2024, HUD published a Final Rule, “Floodplain Management and*
1036 *Protection of Wetlands; Minimum Property Standards for Flood Hazard Exposure; Building*
1037 *to the Federal Flood Risk Management Standard,” updating certain requirements. Although*
1038 *Lenders may begin using the updated floodplain management rule after its effective date of*
1039 *May 24, 2024, Lenders are not required to do so until January 1, 2025. Accordingly, the*
1040 *updated rule is not encompassed within this draft chapter, but HUD anticipates*
1041 *incorporating its new provisions in a future iteration of this chapter.*

1042 1. All Section 232 projects are considered “Critical Actions” for Floodplain Management
1043 purposes, as defined in 24 CFR 55.2(b)(3). Critical Actions include facilities that are
1044 likely to contain occupants who may not be sufficiently mobile to avoid loss of life or
1045 injury during flood or storm events. The 500-year floodplain is the minimum floodplain
1046 of concern for Critical Actions and is the area subject to inundation from a flood having a
1047 0.2 percent chance of occurring in any given year.

1048 2. Applications for Firm Commitment for mortgage insurance are subject to
1049 regulations regarding floodplain management found at 24 CFR Part 55 which
1050 implements Executive Order 11988 (Floodplain Management).

1051 3. If any part of the site or integral offsite development (i.e., ingress, egress and/or
1052 parking) is located within the 100-year floodplain or within a 500-year floodplain
1053 for critical actions, according to the best available data, the project must comply
1054 with HUD’s Floodplain Management regulations.

- 1062 4. Lenders must provide the effective Federal Emergency Management Agency
1063 (FEMA) Flood Insurance Rate Map (FIRM) with the subject site(s) clearly marked
1064 to determine whether the project is in or near a floodplain. In most areas, FIRMs
1065 are available online through the FEMA Map Service Center.
1066
- 1067 5. In addition, the Lender must provide any FEMA-supplied pending or preliminary FIRMs
1068 or studies, or Advisory Base Flood Elevations (ABFE) for the site. During its Floodplain
1069 Management review, HUD must use the latest of these sources, or as otherwise required
1070 by current standards in 24 CFR part 55. If FEMA information is unavailable or
1071 insufficiently detailed, other Federal, state, or local data may be used as the “best
1072 available information”. However, a base flood elevation from an interim or preliminary
1073 or non-FEMA source cannot be used if it is lower than the current FIRM. An online
1074 resource for finding the relevant FIRM and ABFE may be found on the ORCF
1075 Environmental Resources page located on the Section 232 Program website. FEMA
1076 issues ABFEs after major flood disasters, such as Hurricane Sandy, and disseminates
1077 them by region.
1078
- 1079 6. FEMA maps indicate floodplains as follows:
1080 a. 100-year floodplains (a.k.a. the Special Flood Hazard Area (SFHA) and the 1%
1081 annual chance floodplain) are designated as Zone A1–30, AE, A, AH, AO, AR, or
1082 A99.
1083 b. 500-year floodplains (a.k.a. the moderate flood hazard area and the 0.2% annual
1084 chance floodplain) are designated as Zone B or a shaded Zone X.
1085 c. Floodways are the portion of the floodplain which is effective in carrying the flow of
1086 flood waters, where the flood hazard is generally the greatest, and where water depths
1087 and velocities are the highest. Floodways are designated as hatched areas within a
1088 100-year floodplain.
1089 d. Coastal high hazard areas are areas subject to high velocity waters and wave action,
1090 and they are designated as Zone V1–30, VE, or V.
1091 e. Limit of Moderate Wave Action (LiMWA) are coastal areas in updated FEMA maps
1092 that are outside of the coastal high hazard area, but which are expected to receive
1093 between 1.5 and 3 foot breaking waves during a 1% annual chance flood. LiMWAs
1094 are designated with an informational line.
1095 f. Areas where FEMA has not completed a detailed study sufficient to identify the flood
1096 risk are designated as Zone D. As these areas have the potential for unidentified flood
1097 hazards, HUD will rely on best available information to assess risk.
1098
- 1099 7. Due to the potential for significant wave damage in Limit of Moderate Wave Action
1100 (LiMWA) areas, HUD will not approve applications for any new construction, or
1101 substantial improvement as defined at 24 CFR 55. 2(b)(10), on sites in the LiMWA.
1102 HUD strongly discourages approving currently uninsured 232/223(f)s or currently
1103 insured CEST or EA level projects in the LiMWA, and will only do so if the work meets
1104 the current standards for coastal high hazard areas in FEMA regulations (44 CFR
1105 60.3(e)). HUD will consider approving currently insured CENST level refinance

1106 [transactions on a case by case basis. \(The terms CENST, CEST, and EA are defined in](#)
1107 [Section 7.1.B\).](#)

- 1108
1109 8. [Mortgage insurance shall not be approved for a property located in: \(a\) a floodway, \(b\) a](#)
1110 [coastal high hazard area, or \(c\) a FEMA identified Special Flood Hazard Area \(SFHA\) in](#)
1111 [which the community has been suspended from or does not participate in the National](#)
1112 [Flood Insurance Program. In addition, the only access to a property must not be through a](#)
1113 [floodway.](#)

1114
1115 [If a stream coursing through a proposed site is designated as being in the 100-year](#)
1116 [floodplain according to FEMA’s best available data, but there is no designated](#)
1117 [floodway area \(a so-called “regulatory floodway”\), development will be prohibited](#)
1118 [in the channel of the stream.](#)

- 1119
1120 9. [In considering the safety of residents, offsite floodways and other flood hazards will be](#)
1121 [evaluated in terms of separation distance, elevation differences, and the nature of the](#)
1122 [hazard in question. Unacceptable proximity to hazards may result in rejection of the](#)
1123 [application.](#)

- 1124
1125 10. [Exceptions to Part 55 requirements: 24 CFR 55.12\(c\) lists categories of proposed actions](#)
1126 [for which the floodplain management requirements in 24 CFR 55 are not applicable. The](#)
1127 [following exceptions are included in section 55.12\(c\):](#)

1128
1129 a. [Part 55.12\(c\)\(7\) provides an “incidental portion” exception, when only an](#)
1130 [incidental portion of the project site is in the 100-year or 500-year floodplain, and](#)
1131 [the following conditions are met:](#)

1132 i. [All construction \(including existing improvements\) or landscaping](#)
1133 [activities \(except for minor grubbing, clearing of debris, pruning, sodding,](#)
1134 [seeding, etc.\) must not occupy or modify the relevant floodplain. Due to](#)
1135 [the constraint that activities must “not occupy or modify” the floodplain,](#)
1136 [the 100-year or 500-year floodplain cannot be utilized in the development](#)
1137 [or support of any project activity, except as passive open or green space.](#)
1138 [Open space is a portion of a development site that is permanently set aside](#)
1139 [for public or private use and will not be developed. Green space is](#)
1140 [considered to be undeveloped land or land restored to its natural state. The](#)
1141 [incidental exception does not apply to sites that plan to bring in fill for a](#)
1142 [Letter of Map Revision because the fill modifies the floodplain.](#)

1143
1144 ii. [Appropriate provision is made for site drainage; and](#)

1145
1146 iii. [In accordance with 24 CFR 55.12\(c\)\(7\)\(iii\), a protective covenant or](#)
1147 [comparable restriction must be placed on the property’s continued use to](#)
1148 [preserve the 100-year or 500-year floodplain. The covenant or comparable](#)
1149 [restriction must run with the land to provide for permanent preservation of](#)
1150 [the floodplain, and must not be dependent on the mortgage instrument. A](#)
1151 [restriction that is contained in a document that would expire at the](#)

1152 conclusion of the HUD-insured mortgage does not meet the requirement
1153 for permanent preservation of the floodplain.

1154
1155 A template for a compliant covenant is available online on the ORCF
1156 Environmental Resource page.

1157
1158 iv. Projects that utilize the exclusion at 24 CFR 55.12(c)(7) involve onsite
1159 floodplains and must maintain an emergency preparedness plan. The
1160 exhibits listed at 7.3.K.12.a, b, c must be submitted with the mortgage
1161 insurance application.

1162
1163 b. 24 CFR Part 55 requires the completion of a 5-step or 8-step decision making process
1164 when a project site is located in a 100-year floodplain, or in a 500-year floodplain for
1165 critical actions, according to FEMA's best available data or as otherwise required by
1166 current standards in 24 CFR part 55. However, the requirement for a decision making
1167 process does not apply if the project will not impact a wetland and FEMA has issued
1168 a Conditional Letter of Map Amendment (CLOMA) or of Map Revision (CLOMR)
1169 removing the entire site from the 100-year and 500-year floodplain (see 24 CFR
1170 55.12(c)(8)).

- 1171 • If the Borrower has a CLOMA or CLOMR, HUD approval for a Firm
1172 Commitment will be conditioned on the Borrower: (1) meeting the requirements of
1173 the CLOMA or CLOMR; (2) obtaining a Final Letter of Map Amendment
1174 (LOMA) or Map Revision (LOMR) removing the entire property from the
1175 applicable floodplain prior to Final Endorsement; and, (3) maintaining flood
1176 insurance on any building during the construction period until the LOMA or
1177 LOMR is issued.
- 1178 • If any portion of the HUD-insured property remains in the floodplain after the
1179 CLOMA/CLOMR, the project will not qualify for this exception and must proceed
1180 with a 5- or 8-step decision making process.

1181 1182 11. New Construction and Substantial Improvement Projects:

1183 Section 232 sites for new construction and substantial improvement, as defined at
1184 24 CFR 55. 2(b)(10), in 100-year or 500-year floodplains are strongly discouraged.
1185 Such sites in the applicable floodplain according to the best available data will not
1186 be considered for mortgage insurance unless the following steps are taken:

- 1187 a. HUD must determine if there may be extraordinary circumstances leading
1188 to the conclusion that there are no practicable alternatives to the project site
1189 being in the floodplain. ~~is to~~ In order to make this determination, HUD
1190 must conduct an 8-step decision making process that includes publishing
1191 two public notices and taking comments, as summarized in 24 CFR 55.20.
1192 Additional guidance, including an example 8-step process and sample
1193 notices, is available on the HUD Exchange website, which is accessible
1194 from links on the ORCF Environmental Resource page. Prior to issuing the
1195 first public notice, HUD will need detailed information regarding how the
1196 property will be altered and the improvements designed. This information

1197 includes the elevation of the property, the elevation of the floodplain, the
1198 location of life support systems and other data that may be necessary to
1199 assess the safety of the site.

1200 i. For projects involving new construction in a SFHA, the 8-step
1201 process will require as a condition of approval that a CLOMA or
1202 CLOMR be issued for the project buildings prior to initial closing,
1203 and a LOMA or LOMR be issued prior to final closing.

1204 ii. Flood insurance must be maintained on any building in the SFHA
1205 during the construction period until the issuance of a LOMA or
1206 LOMR.

1207 b. The 8-step process shall require that the lowest floor of new construction in
1208 a 100-year or 500-year floodplain be elevated at or above the 100-year
1209 flood level according to FEMA’s best available data, plus two feet of
1210 freeboard. Such elevation would also apply to driveways, walkways,
1211 parking areas and any exterior mechanical equipment and supportive
1212 services (e.g. generator pad, aboveground fuel storage tank, etc.). If higher
1213 elevations are required by locally adopted code or standards, those higher
1214 standards apply.

1215 c. Substantial rehabilitation projects must elevate or mitigate following
1216 National Flood Insurance program requirements (as instituted by state and
1217 local codes).

1218 d. All critical actions must comply with the requirements of 24 CFR 55.20(e),
1219 also known as Step 5 of the decision making process. See 7.3.K.12 below
1220 for a list of exhibits that must be submitted with the mortgage insurance
1221 application to document compliance with Step 5.

1222 e. The 8-step process shall be completed before issuance of the Firm
1223 Commitment.

1224 f. HUD must approve the two notices but the costs of publication will be
1225 borne by the Borrower.

1226 g. The 8-step process shall consider three alternatives: the action as proposed,
1227 modifications within the aggregated project site, or no action; i.e., rejection
1228 of the application.

1229 h. Projects that are converting from a non-residential use to a residential use
1230 are considered the same as “new construction” for floodplain management
1231 purposes.

1232
1233 12. As required by 24 CFR 55.20(e), all critical actions in the 100-year or 500-year
1234 floodplain according to FEMA’s best available data or as otherwise required by
1235 current standards in 24 CFR part 55 shall include:

1236 a. Preparation of and participation in an early warning system. To document
1237 compliance with this requirement, the application must indicate the specific
1238 method(s) used to monitor weather conditions and flooding alerts.

1239 b. An emergency evacuation and relocation plan. The application must
1240 provide names and addresses of like facilities (i.e., similar residential
1241 healthcare facilities) that have agreements or contracts with the subject to
1242 serve as temporary relocation sites for the subject’s residents.

- 1243 c. Identification of evacuation route(s) out of the 500-year floodplain.
1244 For documentation, include road maps and the flood zone designations of
1245 the relocation sites. The relocation sites must be located outside the 500-
1246 year floodplain.
- 1247 d. Identification marks of past or estimated flood levels on all structures. The
1248 markings need to be permanent, and located in a public area to “enhance
1249 public awareness of and knowledge about flood hazards”. A metal plaque
1250 which is permanently installed on the exterior of the building will be
1251 acceptable. The application exhibit should include the
1252 information/calculation used to determine the estimated flood level.

1253
1254 While 100-year flood levels can often be found on the FIRM, 500-year
1255 flood levels are not typically shown on the maps. Methods that can be used
1256 to estimate the 500-year flood level include the following:

- 1257 i. The 500-year flood level may be available in the Flood Insurance
1258 Study (FIS) which is accessible on the FEMA website, or by
1259 contacting the Community’s Floodplain Manager, municipal
1260 planning office or building official.
- 1261 ii. By multiplying the nearby Base Flood Elevation - BFE (i.e., 100-
1262 year flood level) by a factor of 1.25 (applicable in low-lying areas,
1263 coastal regions).
- 1264 iii. By using the elevation that results from using the freeboard value.
1265 For critical actions this is reached by adding an additional 3 feet to
1266 the nearby 100-year BFE.
- 1267 e. Exception to flood level marks: If it has been determined that
1268 identification marks cannot be placed on the building(s) because of items i
1269 and ii below, then the application must include the results of research into
1270 these issues and a description of why flood level identification marks on
1271 the building cannot be provided. The description must address both i and ii
1272 below.
- 1273 i. There are no indications or evidence that the building has
1274 experienced past floods; and
- 1275 ii. There are no estimated flood levels available. For example:
1276 1. the building is located outside the 100-year and 500-year
1277 floodplains; or
1278 2. the building is located in a 100-year or 500-year floodplain
1279 and FEMA has not established a flood elevation that allows
1280 a reasonable estimate to be made for the subject building,
1281 such as when there is no 100-year BFE in the vicinity at a
1282 reasonably comparable elevation.

1283
1284 13. Abbreviated 8-step Decision Making Process (The 5-step process)

1285 For Section 232/223(f) purchase or refinancing actions described in 24 CFR 55.12(a)(2),
1286 or non-substantial repair, rehabilitation, modernization, weatherization or improvement
1287 actions described in 24 CFR 55.12(a)(3), a 5-step decision making process pursuant to 24
1288 CFR 55.12(a) may be used by HUD to determine their acceptability. The abbreviated

1289 [process eliminates the two public notices and the alternatives analysis required by the full](#)
1290 [8-step process. Detailed information about the proposed actions, and about any plans for](#)
1291 [mitigation, must be submitted with the application. HUD will evaluate risks and](#)
1292 [mitigation measures in making its decision but it discourages these actions if either the](#)
1293 [lowest floor, or the life support facilities, or egress and ingress of the existing building,](#)
1294 [are below the 100-year base flood elevation.](#)

- 1295 • [Compliance with 24 CFR 55.20\(e\) is required as part of the 5-step process for Section](#)
1296 [232 projects. See 7.3.K.12 above for a list of exhibits that must be submitted with the](#)
1297 [mortgage insurance application to document compliance with Section 55.20\(e\).](#)
- 1298 • [The abbreviated review process shall be completed by HUD before issuance of the Firm](#)
1299 [Commitment.](#)

1300
1301 [14. Where a site does not appear to be located in the floodplain on official FEMA](#)
1302 [maps, but shows evidence of flooding, HUD is not precluded from qualitatively](#)
1303 [evaluating the acceptability of the site.](#)
1304

1305 [15. Lenders will be required to provide extensive data to aid HUD in evaluating floodplain](#)
1306 [sites.](#)

1307
1308 [16. The cost of floodplain mitigation may be included in the proposed mortgage loan.](#)

1309
1310 [17. Section 232/223\(a\)\(7\) and FHA-insured Section 232/223\(f\) refinances: Pursuant](#)
1311 [to 24 CFR 50.19\(b\) \(21\), refinances of currently FHA-insured mortgages are](#)
1312 [exempt from the 8-step decision making process when the refinance will not result](#)
1313 [in any physical impacts or changes except for routine maintenance \(CENST\).](#)
1314 [Guidance for clarifying the difference between routine maintenance and repair is](#)
1315 [available on the ORCF Environmental Resources page. Regardless of exemption,](#)
1316 [the following are required for all Section 232 applications when the project site is](#)
1317 [located in a 100-year or 500-year floodplain. \(See Section 7.3.K.12 for additional](#)
1318 [information regarding these items.\)](#)

- 1319 [a. Preparation of and participation in an early warning system;](#)
- 1320 [b. An emergency evacuation and relocation plan;](#)
- 1321 [c. Identification of evacuation route\(s\) out of the 500-year floodplain.](#)

1322 [L. **Historic Preservation** \(24 CFR 50.4\(a\)\):](#)

1323
1324
1325 [1. HUD must comply with the National Historic Preservation Act \(54 U.S.C. § 300101 et](#)
1326 [seq.\) and its implementing regulations at 36 CFR Part 800. Section 106 of the National](#)
1327 [Historic Preservation Act \(NHPA\) requires Federal agencies to take into account the](#)
1328 [effects of their undertakings on historic properties, consult with the State Historic](#)
1329 [Preservation Officer \(SHPO\) and/or Tribal Historic Preservation Officer, and other](#)
1330 [consulting parties as appropriate, and to invite the Advisory Council on Historic](#)
1331 [Preservation to participate in the review when there is or may be an adverse effect. The](#)

1332 [process is known as Section 106 review.](#)

- 1333
- 1334 2. [The Section 106 review must be completed before HUD approves and/or commits funds](#)
- 1335 [to a project. Additional guidance on historic consultation is available on the ORCF](#)
- 1336 [Environmental Resource page.](#)
- 1337
- 1338 3. [Pursuant to the “anticipatory demolition” requirements of Section 110\(k\) of the NHPA,](#)
- 1339 [even before the application submission takes place, any action by a potential Lender or](#)
- 1340 [Borrower, or any action by another party that the Lender or Borrower has the legal power](#)
- 1341 [to prevent, which is taken with the intent to circumvent Section 106 review and that](#)
- 1342 [significantly adversely affects a historic property, could result in rejection of an](#)
- 1343 [application.](#)
- 1344
- 1345 4. [Applications for Firm Commitment for HUD mortgage insurance are considered “federal](#)
- 1346 [undertakings” that require HUD to make a determination of no historic properties](#)
- 1347 [affected, no adverse effect, or adverse effect upon historic properties. There are three](#)
- 1348 [exceptions, listed below. If applicable, a statement identifying the exception and](#)
- 1349 [supporting documentation must be included in the application.](#)
- 1350 [Exceptions:](#)
- 1351 a. [Categorical exclusions not subject to related laws and authorities \(CENST\) under 24](#)
- 1352 [CFR 50.19\(b\)\(21\).](#)
- 1353 b. [Projects that will not involve new construction or rehabilitation, nor result in any](#)
- 1354 [physical impacts or changes except for routine maintenance, have No Potential to](#)
- 1355 [Cause Effects under 36 CFR 800.3\(a\)\(1\), and HUD has no further obligations under](#)
- 1356 [Section 106 or 36 CFR Part 800. To determine if a project qualifies for this](#)
- 1357 [exception, please see HUD Notice CPD-16-02 “Guidance for Categorizing an](#)
- 1358 [Activity as Maintenance for Compliance with HUD Environmental Regulations, 24](#)
- 1359 [CFR Parts 50 and 58” \(or succeeding guidance\), which is available on the ORCF](#)
- 1360 [Environmental Resource page. For such transactions there is no obligation to contact](#)
- 1361 [the SHPO, and historic preservation responsibilities are limited to documenting this](#)
- 1362 [determination in HEROS by marking “No Potential to Cause Effects” on the Historic](#)
- 1363 [Preservation Screen and uploading a copy of relevant documentation.](#)
- 1364
- 1365 c. [Some states have a Programmatic Agreement \(PA\) with HUD, and the proposal may](#)
- 1366 [be part of a class of actions that do not require Section 106 consultation under the PA.](#)
- 1367 [HUD’s historic preservation responsibilities are limited to documenting this](#)
- 1368 [determination in HEROS by marking the Programmatic Agreement selection on the](#)
- 1369 [Historic Preservation screen, uploading the PA into HEROS, and copying the](#)
- 1370 [applicable part of the PA agreement into HEROS. Information about states with Part](#)
- 1371 [50 Programmatic Agreements is available on the ORCF Environmental Resource](#)
- 1372 [page.](#)
- 1373
- 1374 5. [If an exception does not apply, HUD must conduct a Section 106 review and make a](#)
- 1375 [finding of effect. HUD has determined that Lenders and their authorized representatives](#)
- 1376 [may act on behalf of HUD to consult with SHPOs and other consulting parties to initiate](#)

1377 [the Section 106 review process, identify and evaluate historic properties, and assess](#)
1378 [effects. A link to the Authorization Memorandum for Section 106 Consultation is](#)
1379 [available on the ORCF Environmental Resource page.](#)

1381 [• Lenders that do not use the delegated process must notify HUD and still provide](#)
1382 [HUD the information required in 7.3.L.5.c below.](#)

1384 [• This authorization does not extend to consultation with Tribes. HUD must initiate](#)
1385 [and conduct tribal consultation. Lenders should coordinate with HUD early so that](#)
1386 [Tribal consultation can happen in a timely manner.](#)

1387
1388 [a. A historic property means any prehistoric or historic district, site, building, structure,](#)
1389 [object, or traditional property or landscape included in, or eligible for inclusion in, the](#)
1390 [National Register of Historic Places maintained by the Secretary of the Interior.](#)
1391 [HUD must also consider the area of potential effect \(APE\), which is often the site](#)
1392 [boundary, but may be the block on which the site is located or the immediate site](#)
1393 [environs. Area of potential effects is defined as the geographic area or areas within](#)
1394 [which an undertaking may directly or indirectly cause alterations in the character or](#)
1395 [use of historic properties, if any such properties exist.](#)

1396
1397 [b. After the APE is defined, and historic properties within it are identified, the potential](#)
1398 [impacts to those historic properties shall be evaluated. Because of the technical](#)
1399 [nature of historic property identification, evaluation and treatment, it may be](#)
1400 [appropriate to retain a qualified historic preservation professional to prepare the](#)
1401 [findings. Such consultant should meet the Secretary of the Interior’s Professional](#)
1402 [Qualifications \(36 CFR Part 61\) and have experience in Section 106 reviews.](#)

1403
1404 [c. The material provided to the SHPO should include a narrative explaining the](#)
1405 [proposal, including a description of the project as is, and the proposed project](#)
1406 [activities, construction and/or alterations and repairs; a map identifying the site](#)
1407 [location and proposed Area of Potential Effect \(APE\); a list of potential interested](#)
1408 [consulting parties that have been or will be invited to consult; a description of](#)
1409 [identified historic properties \(listed and eligible\); digital photos of buildings and](#)
1410 [setting; a description of direct or indirect effects on the historic properties; and a](#)
1411 [determination of No Historic Properties Affected, No Adverse Effect, or Adverse](#)
1412 [Effect. The information must be submitted to the SHPO following the procedures](#)
1413 [outlined by the individual SHPO office.](#)

1414
1415 [d. Lenders and their authorized representatives using the delegated process must include](#)
1416 [a copy of HUD’s Authorization Memorandum with each submission to the SHPO.](#)
1417 [The submission must include the information discussed in 7.3.L.5.c above, plus the](#)
1418 [HUD program followed by the section of the National Housing Act and an](#)
1419 [appropriate contact person at both the Lender’s organization and the authorized](#)
1420 [representative hired to coordinate the review.](#)

1422 e. For Lenders and their authorized representatives using the authorization, if a project
1423 involves demolition of a building over 45 years old, new construction in or adjacent
1424 to a historic district, substantial ground disturbance, or exterior rehabilitation of a
1425 building more than 45 years old, Lenders must retain a Qualified Historic
1426 Preservation Professional in the discipline relevant to the project activities to prepare
1427 submissions to the SHPO, manage consultation with interested parties and the public,
1428 and coordinate early with HUD on HUD’s tribal consultation.

1429
1430 A Qualified Historic Preservation Professional is one who meets the Secretary of the
1431 Interior’s Professional Qualifications Standards for Archeology, History,
1432 Architectural History, Architecture, or Historic Architecture and has substantial
1433 experience in conducting Section 106 reviews of historic properties. Detailed
1434 information can be found at the National Parks Service website – Article “Secretary
1435 of the Interior’s Standards and Guidelines for Archeology and Historic Preservation –
1436 Professional Qualification Standards”.

1437
1438 f. All submission materials, a copy of the letter to the SHPO and a copy of the response
1439 must be included in the HEROS ERR along with any comments received from
1440 consulting parties and the public. HUD remains legally responsible for all findings
1441 and determinations, regardless of who initiates the Section 106 review. HUD will
1442 independently review and confirm the APE, the determination of effect finding and
1443 the SHPO’s response and may request additional information if needed. Only HUD
1444 staff can complete the HEROS Historic Preservation screen by documenting whether
1445 compliance steps or mitigation are required.

1446
1447 g. The SHPO has 30 calendar days to respond from receipt of an adequately documented
1448 submission. If the submission is inadequate, the SHPO may request additional
1449 information and the 30-day clock resets to the date that SHPO receives it.

1450
1451 6. Because of the technical nature of historic property identification, evaluation and treatment,
1452 it may be appropriate to retain a Qualified Historic Preservation Professional to prepare the
1453 initial consultation and supporting documentation even for projects where HUD is
1454 conducting the consultation directly or for delegated projects that do not otherwise require
1455 it. Such consultant should meet the Secretary of the Interior’s Professional Qualifications
1456 Standards (36 CFR Part 61) and have experience in Section 106 reviews. Examples of when
1457 retention of a qualified historic preservation professional may be appropriate include when
1458 National Register eligibility of a property is unclear, when adverse effects are expected,
1459 when the property contains archeological sites, and/or when the project is controversial.

1460
1461 7. For a No Historic Properties Affected or No Adverse Effect determination, after a SHPO
1462 concurrence has been received and/or 30 calendar days after the SHPO’s receipt of an
1463 adequately documented finding have elapsed without objection from the SHPO or consulting
1464 parties, obligations under Section 106 are fulfilled.

1465 a. No Historic Properties Affected is appropriate when there are no historic properties or

1466 [there are no direct or indirect effects on historic properties.](#)

1467 [b. No Adverse Effect is used when there is an historic property that is affected by the](#)
1468 [project, but the effects are not adverse.](#)

1469
1470 [8. HUD will participate in and complete the Section 106 process when: an undertaking may](#)
1471 [adversely affect a historic property or historic district; there is a disagreement between the](#)
1472 [applicant or their authorized representative and the SHPO regarding identification and](#)
1473 [evaluation or historic properties and/or assessment of effects; there is potential for a](#)
1474 [foreclosure situation per 36 CFR 800.9\(b\) or anticipatory demolition as specified in Section](#)
1475 [110\(k\) of the National Historic Preservation Act; there is an objection from Tribes,](#)
1476 [consulting parties or the public regarding their involvement in the review process,](#)
1477 [recommended Section 106 findings and determinations, or the implementation of agreed](#)
1478 [upon provisions; or HUD deems the consultation record inadequate. This process may](#)
1479 [result in a design change, research and preservation, salvage, or in rare cases, rejection of](#)
1480 [the application for Firm Commitment. Consultation to resolve adverse effects does not](#)
1481 [have a 30 calendar day limit, it may take considerable time and must be completed](#)
1482 [generally through execution of a Memorandum of Agreement \(MOA\) before a commitment](#)
1483 [can be issued.](#)

1484
1485 [9. Tribal Consultation:](#)

1486 [a. When Section 106 consultation is required, consultation with federally recognized](#)
1487 [Indian tribes and Native Hawaiian Organizations may be required as part of the](#)
1488 [Section 106 process. Not all projects that require Section 106 review require](#)
1489 [consultation with Indian tribes. Consultation with federally recognized tribes is only](#)
1490 [required when a project includes activities that have the potential to affect historic](#)
1491 [properties of religious and cultural significance to tribes. These types of activities](#)
1492 [include:](#)

- 1493 [• ground disturbance \(digging\),](#)
- 1494 [• new construction in undeveloped natural areas,](#)
- 1495 [• introduction of incongruent visual, audible, or atmospheric changes,](#)
- 1496 [• work on a building or structure with significant tribal association, or](#)
- 1497 [• transfer, lease or sale of historic properties of religious and cultural significance.](#)

1498
1499 [Further guidance on Tribal Consultation is provided in HUD Memorandum, “Section 106](#)
1500 [Tribal Consultation in Projects Reviewed Under 24 CFR Part 50”, which can be accessed](#)
1501 [from the ORCF Environmental Resources page.](#)

1502
1503 [b. When tribal consultation is required, the Lender will utilize the HUD Tribal Directory](#)
1504 [Assessment Tool \(TDAT\) \(see the ORCF Environmental Resources Page\) to](#)
1505 [determine if the site is located in an area where a Tribe has indicated interest or](#)
1506 [significance, and will present this information to HUD.](#)

1507
1508 [c. When tribal consultation is required, the Lender must submit the same information](#)
1509 [discussed in Section 7.3.L.5.c to HUD in the form of draft letters to each Tribe, with](#)

1510 photos, maps and exhibits attached. HUD will review the information, prepare the
1511 letters on HUD letterhead, and mail or email the letters, as appropriate for each Tribe.

1512
1513 d. Only HUD can consult with the Tribes.

1514
1515 e. The tribal consultation requirement applies to properties off tribal lands as well as on
1516 tribal lands. Properties with religious and cultural significance to native people may
1517 include ancestral archaeological sites and natural areas where traditional practices or
1518 ceremonies have been carried out as well as more familiar historic properties. Some
1519 traditionally used places have very strong religious associations, and it may be
1520 difficult or even inappropriate for native people to talk about their significance. If
1521 this situation arises, hiring a qualified professional with experience in tribal
1522 consultation may be required. Tribes have Indigenous Knowledge (IK) about
1523 properties of traditional religious and cultural importance. Indigenous Knowledge has
1524 a role the Section 106 process when properties that may be of religious and cultural
1525 significance to Indian Tribes or NHOs may be affected by an undertaking.

1526
1527 10. Project Construction/Ground Disturbance: Any contractor must stop construction if
1528 there are (actual or suspected) archaeological site conditions, human remains or cultural
1529 resources found. HUD must be notified in such instances. Construction must not
1530 resume without Tribal/Historic clearance. Therefore, when a project involves ground
1531 disturbance, the environmental review and Firm Commitment will include the
1532 following requirement:

- 1533
1534 • Archaeological Site, Human Remains, or Cultural Resources of Tribal or
1535 Historic Interest:
1536 If an archaeological site, human remains, or cultural resources of historic or
1537 tribal interest are revealed during the project's construction, the project manager
1538 must immediately stop work in the area of the discovery and notify HUD within
1539 48 hours. HUD will contact the State Historic Preservation Officer (SHPO)
1540 and/or the Tribal Historic Preservation Officer (THPO), participating tribes and
1541 other consulting parties and continue Section 106 consultation. If ground
1542 disturbance is to occur after the loan closing, the closing package must contain a
1543 certification of this condition from the borrower.

1544
1545 11. For projects receiving federal and/or state historic tax credits (HTC) the HTC process
1546 does not replace HUD's obligations under Section 106. Projects with HTC must still
1547 consult with the SHPO, Tribes, other consulting Tribes and the public as appropriate.
1548 The materials used in the HTC application (Parts 1 and 2) should be useful in the
1549 Section 106 consultation.

1550
1551 12. The cost of historic preservation mitigation may be included in the proposed mortgage loan.

1552
1553 **M. Housing Requirements – Additional Nuisances and Hazards:**

- 1554 • See Section 7.4 Additional Nuisances and Hazards

1555
1556 **N. Lead Based Paint:**

- 1557 1. Lead-based paint (LBP) may be present in buildings built prior to 1978. During any
1558 proposed repair work, the removal and disposal of the LBP must be performed in
1559 accordance with regulations as published and enforced by the State and the Department
1560 of Labor - Occupational Safety and Health Administration (OSHA). If required,
1561 appropriate lead paint remediation can be a required Firm Commitment condition in
1562 HEROS. LSTF lead based paint requirements must be complied with.
- 1563
- 1564 2. HUD's lead-based paint requirements at 24 CFR Part 35 are applicable to housing built
1565 before 1978, but do not apply to housing designated exclusively for the elderly or persons
1566 with disabilities or any 0-bedroom dwelling, unless a child of less than 6 years of age
1567 resides or is expected to reside in such housing. With the exception of Section 7.3.N.1,
1568 HUD's lead-based paint requirements are not applicable to rehabilitation, refinancing or
1569 purchase of health care facilities under Section 232.

1570

1571 **O. Noise Analysis (24 CFR 50.4(k)):**

- 1572
- 1573 1. New Construction/Conversion Projects: HUD standards regarding the acceptability of
1574 noise impacts on residential property are found at 24 CFR Part 51, Subpart B; these
1575 standards must be met for new construction and conversion from nonresidential to
1576 residential projects. Where a project is within the criteria on distance from noise
1577 generators, a noise analysis utilizing the methodology in the most current version of
1578 HUD's Noise Guidebook will be performed as part of HUD's environmental assessment.
1579 HUD's automated Day/Night Noise Level electronic assessment tool is available on the
1580 ORCF Environmental Resource Page.
- 1581
- 1582 a. Standards: The degree of acceptability of the noise environment at a site is
1583 determined by the sound levels external to buildings or other facilities
1584 containing noise sensitive uses. The standards shall usually apply at a location
1585 2 meters (6.5 feet) from the building housing noise sensitive activities, in the
1586 direction of the predominant noise source. Where the building location is
1587 undetermined, the standards shall apply 2 meters (6.5 feet) from the building
1588 setback line nearest to the predominant noise source. The standards shall also
1589 apply at other locations where it is determined that quiet outdoor space is
1590 required in an area ancillary to the principal use on the site.
- 1591 i. For new construction and conversions from non-residential to residential
1592 located above the noise threshold criteria, projects shall incorporate noise
1593 attenuation features as required by HUD environmental criteria and
1594 standards at 24 CFR 51.104. The interior standard is 45 dB (decibels).
- 1595 ii. Sites with a day-night average exterior noise level of 65 DNL (Day Night
1596 Level) and below are acceptable.
- 1597 iii. HUD assistance for the construction of new noise sensitive uses is
1598 discouraged for projects with normally unacceptable noise exposure
1599 (above 65 DNL but not exceeding 75 DNL) and is prohibited generally for
1600 projects with unacceptable noise exposures above 75 DNL. Approvals in

1601 this noise zone require a minimum of 5 dB additional sound attenuation
1602 for buildings having noise-sensitive uses if the day-night average sound
1603 level is greater than 65 dB but does not exceed 70 dB, or a minimum of 10
1604 decibels of additional sound attenuation if the day-night average sound
1605 level is greater than 70 dB but does not exceed 75 dB. Where the sound
1606 attenuation is determined using the online Sound Transmission
1607 Classification Assessment Tool (STraCAT), the required attenuation value
1608 provided by the tool may be used (<https://www.hudexchange.info/stracat/>).

1609 iv. New construction or conversions of existing structures to residential housing in
1610 the Unacceptable Noise Zone, where outdoor noise levels are above 75 dB, are
1611 generally prohibited. If ORCF wants to consider such a proposal, it must:

- 1612 • Prepare an Environmental Impact Statement (EIS). If ORCF believes
1613 that the proposal is acceptable based on the EIS, it must then obtain
1614 project approval, including approval of noise mitigation measures,
1615 from the Assistant Secretary for Community Planning and
1616 Development and must also obtain project approval, including
1617 approval of noise mitigation measures, from the Assistant Secretary
1618 for Housing.
- 1619 • If ORCF determines that noise is the only environmental issue and no
1620 outdoor noise sensitive activity that is not mitigated to below HUD's
1621 65-decibel standard will take place on the site, it may request a waiver
1622 of the EIS Requirement by the Assistant Secretary for Community
1623 Planning and Development.

1624 b. Projections of Noise Exposure: In addition to assessing existing exposure,
1625 future conditions should be projected. To the extent possible, noise exposure
1626 shall be projected to be representative of conditions that are expected to exist
1627 at a time at least 10 years beyond the project application date.

1628 c. HUD should be consulted prior to designing mitigation measures.

1629

1630 2. Existing and Rehabilitation Projects: For rehabilitation and refinancing, noise exposure
1631 will be considered as a marketability factor. For rehabilitation projects, HUD will
1632 encourage appropriate noise attenuation measures for inclusion in the alterations. Projects
1633 at the CEST level of review are not required to complete a noise calculation but must
1634 complete preliminary noise screening of distance from noise sources. The preliminary
1635 screening must include distance from the project to each noise source.

1636

1637 For rehabilitation projects that require an Environmental Assessment level of review,
1638 HUD will actively seek noise mitigation for projects in the "Normally Unacceptable" or
1639 "Unacceptable" noise zones. For projects in the "Unacceptable" zone where HUD policy
1640 strongly encourages conversion of noise exposed sites to land uses compatible with the
1641 high noise levels, HUD will also critically evaluate the application to determine the
1642 project's compatibility with HUD's interior noise goal of a day-night average of 45
1643 decibels, and to determine the noise level's effect on marketability.

1644

1645 3. The HUD noise regulation allows flexibility for non-acoustic benefits in limited situations.
1646 The project must meet all of the conditions at 24 CFR 51.105 and receive the approval of

1647 [a Regional or Field Environmental Officer.](#)

1648
1649 4. Railroad Noise, and Location:

- 1650 a. For new construction applications, a noise study for the railroad should be
1651 projected out 10 years to cover increased usage of the railway tracks.
- 1652 b. A rail line may not bisect a property, nor should a rail line's right-of-way
1653 generally encroach upon the site. Whenever rail lines are less than 100 feet from
1654 a facility, preliminary approval should be obtained via LeanThinking@hud.gov
1655 prior to the application submission.
- 1656 c. Railyards (areas of multiple track sections used for assembling and disassembling
1657 trains) have been determined to create loud, impulsive sounds. For projects within
1658 3,000 ft of actively operating rail yards, HUD may require up to 8 dB additional noise
1659 attenuation to be incorporated in the project. In determining whether this is necessary,
1660 HUD will consider the impact of existing or proposed barriers, topography, and nature
1661 of the rail yard operations.

1662
1663 P. Radon

1664 Background. One common constituent of soil and rock is the unstable element
1665 uranium. One of the decay products of uranium is radon, a colorless, odorless gas.
1666 Under certain natural conditions, the radon gas can enter surface soils and become
1667 part of the "soil gas" environment, which then can enter the air, including air inside of
1668 buildings. When soil gas that contains radon enters a building, radon and its decay
1669 products are either directly inhaled, or attached to dust on walls, floors and in the air,
1670 which then can be inhaled. These decay products then undergo further decay,
1671 resulting in the release of subatomic alpha particles. This alpha particle radiation can
1672 cause mutations in lung tissue which can lead to lung cancer. The risk of contracting
1673 lung cancer from radon increases with an increase in the concentration of radon in the
1674 air that is breathed by building occupants. EPA recommends mitigation for residences
1675 with radon concentrations at or above 4 picocuries per liter of air (pCi/L).

1676 General Requirements:

1677 1. Radon Report

- 1678 a. The radon report is required for all mortgage insurance applications, unless an
1679 exception listed in Section 7.3.P.3 applies.
- 1680 b. The radon report shall be included in the application, as applicable. For new
1681 construction, or substantial rehabilitations or conversions where early testing is
1682 not feasible, the radon report must be submitted to HUD after construction is
1683 complete but prior to HUD's final inspection. Applications (including those for
1684 which early testing is not feasible) must include the radon mitigation system in the
1685 architectural plans, as HUD relies on the Project Architect to design and incorporate
1686 any required radon mitigation system consistent with the relevant standard. HUD
1687 encourages the Architect to seek technical advice from a radon professional should
1688 the Architect believe it to be necessary in their professional judgment or if it is
1689 required by the relevant mitigation standard.

1690 c. The radon report shall follow the protocols and reporting requirements set forth in the
1691 American Association of Radon Scientists and Technologists, Protocol for
1692 Conducting Measurements of Radon and Radon Decay Products in Multifamily,
1693 School, Commercial and Mixed-Use Buildings (ANSI/AARST MA-MFLB-2023, or
1694 most recent edition). The report shall include the results of any testing performed, the
1695 sampling strategy as applicable, the details of any mitigation deemed necessary, and
1696 the timing of any such mitigation. The radon report must be signed and certified as to
1697 its compliance with the requirements of this section by a Radon Professional and
1698 must include copies of appropriate certifications and/or licenses.

1699
1700 2. Radon Professional

1701 a. All testing of existing properties, post-construction testing, and any mitigation must
1702 be performed by, or under, the direct supervision of a Radon Professional, in
1703 accordance with the protocols referenced in this section.

1704 b. Radon Certification/License of the Radon Professional is required as follows:

1705 i. Certification from either the American Association of Radon Scientists and
1706 Technologists (AARST) National Radon Proficiency Program (NRPP) or the
1707 National Radon Safety Board (NRSB); and

1708 ii. Certification/License from the state in which the testing or mitigation work is
1709 being conducted, if the state has this requirement.

1710
1711 3. Exceptions to Radon Report

1712 a. A Radon Professional may conclude that testing or mitigation is not necessary based
1713 on exemptions laid out in the relevant state or ANSI/AARST radon standard. Any
1714 such justifications as to why testing or mitigation is not necessary must be provided in
1715 the application, in the form of a signed letter from the radon professional that
1716 references the appropriate standard. Housing staff will determine whether to grant the
1717 exception.

1718 b. A radon report is not required for applications that are categorically excluded not
1719 subject to the laws and authorities at 50.4 (CENST) as per 24 CFR 50.19(b) (21) (see
1720 7.1.B.1, above).

1721 c. Applicants are encouraged to test for radon even if a radon report is not required per
1722 the exceptions above. Any such testing must follow the testing protocols and resident
1723 notification protocols below, and must then be incorporated within a radon report as
1724 described within this section. If the results of such testing indicate levels of radon
1725 above the threshold for unacceptability, mitigation as described in this section is
1726 required, with the mitigation requirements for Section 223(a)(7) projects the same as
1727 those for 223(f) projects.

1728
1729 4. Testing Protocols

1730 a. Radon testing must follow the protocols set by ANSI/AARST MALB, most recent
1731 edition. This includes testing 100% of ground floor areas and 10% of upper floor
1732 areas in all buildings included in the project.

1733 b. Threshold for unacceptability: 4.0 picocuries per liter (4.0 pCi/L) based on initial and
1734 any follow-up testing, if performed.

- 1736 5. Occupant Notification
- 1737 a. Testing. Occupants of all new applications for ORCF mortgage insurance programs
- 1738 shall be informed of forthcoming testing in the manner described in ANSI/AARST
- 1739 MALB.
- 1740 b. Mitigation. Occupants shall be informed both prior to and after mitigation activities.
- 1741 In the case of new construction, incoming occupants shall be informed of radon
- 1742 mitigation activities.
- 1743
- 1744 6. Mitigation Standards. Radon resistant construction is required for all new construction,
- 1745 and radon mitigation is required for existing construction where testing has revealed that
- 1746 radon levels meet or exceed the threshold for unacceptability. The radon resistant
- 1747 construction or radon mitigation, when required, must conform to the following
- 1748 standards, which include post-mitigation testing requirements.
- 1749 a. Existing buildings:
- 1750 i. ANSI/AARST RMS-LB-2018 (or most recent version), Radon Mitigation
- 1751 Standards for Schools and Large Buildings.
- 1752 ii. A small number of cases may include 1-family, 2-family, or townhouse type
- 1753 structures. Mitigation in those types of structures reference ANSI/AARST
- 1754 Standard SGM-SF (most recent version), Soil Gas Mitigation Standards for
- 1755 Existing Homes.
- 1756 b. New construction:
- 1757 i. ANSI/AARST CC-1000-2018 (or most recent version), Soil Gas Control Systems
- 1758 in New Construction of Buildings is the construction standard for large buildings.
- 1759 ii. ANSI/AARST CCAH (most recent version), Reducing Radon in New Construction
- 1760 of 1 & 2 Family Dwellings and Townhouses may be appropriate for a small number
- 1761 of Section 232 projects. An example would be a large main building (which must
- 1762 comply with CC-1000) with several duplex residences (which must comply with
- 1763 CCAH) around the main building.
- 1764
- 1765 7. Mitigation Timing.
- 1766 a. For new construction and substantial rehabilitation properties, all mitigation,
- 1767 including follow-up testing, must be complete and all reports submitted prior to
- 1768 HUD's final inspection.
- 1769 b. Radon mitigation included as part of a Section 232/223(f) or 223(a)(7) project's
- 1770 repairs must be completed as quickly as practicable, and in any event, no later than 12
- 1771 months after the Loan Closing. The mitigation budget must be determined prior to the
- 1772 issuance of the Firm Commitment and the amount must be included in the project's
- 1773 costs.
- 1774
- 1775 8. Certificate of Completion. A certificate of completion from the Radon Professional must
- 1776 be submitted and appended to the radon report once radon testing and/or mitigation is
- 1777 completed.
- 1778
- 1779 9. Operation and Maintenance Plans: An operation and maintenance plan (called an
- 1780 operation, maintenance and monitoring (OM&M) plan under the ANSI/AARST
- 1781 standards) must be administered in accordance with the applicable mitigation standard for

1782 any mitigation project. A condition shall be attached to the Firm Commitment requiring
1783 that the Borrower operate and maintain the property consistent with the referenced
1784 OM&M plan for the duration of the insured mortgage. The project must submit the final
1785 OM&M plan to HUD after the radon mitigation system is installed. Given the ongoing
1786 risk associated with radon, the OM&M requirement for maintaining mitigation systems
1787 must be implemented when a mitigation system is present on the property.

1788
1789 10. Existing Mitigation Systems: All existing mitigation systems installed at the property
1790 must be evaluated to ensure that they function properly, and if applicable, corrective
1791 action must be taken by a qualified radon professional.

1792
1793 11. Cost estimates. It is the responsibility of the Lender to provide the cost estimate for
1794 radon remediation to be included into the overall construction or repair costs. The cost
1795 estimate must include ongoing OM&M costs. Estimates must be based on the locality of
1796 the project as well as the proposed time of installation.

1797
1798 12. Section 223(f) and Non-Excepted Section 223(a)(7).

1799 a. All Section 223(f) and non-excepted 223(a)(7) projects must be tested for radon in
1800 accordance with 7.3.P.4 Testing Protocols, above.

1801 b. Testing must be performed no earlier than 1 year prior to application submission.

1802 c. Mitigation. See requirements at 7.3.P.6 Mitigation Standards which include post
1803 mitigation testing. If estimated costs exceed the allowable cost for the Section 223(f)
1804 program, the application cannot be approved but may be considered under the
1805 substantial rehabilitation program.

1806
1807 13. Substantial Rehabilitation and Conversions.

1808 a. All substantial rehabilitation and conversion projects must be tested for radon.

1809 b. Early testing not feasible: For some proposals, such as a conversion of an existing
1810 building from non-residential to residential, the building envelope may change to
1811 such an extent that early testing would not be appropriate and in some cases not
1812 possible. If this is the case, proceed directly to mitigation as discussed at Section
1813 7.3.P.6 Radon reports are required with the post-construction testing prior to HUD's
1814 Final Inspection.

1815 c. Early testing when feasible

1816 i. Must be performed no earlier than 1 year prior to application submission in
1817 accordance with 7.3.P.4 Testing Protocols

1818 ii. If test results are below the threshold, no mitigation is required.

1819 iii. If test results are at or above the threshold, mitigation must be built into the
1820 project design per Section 7., ~~identify any contamination on a site~~3.P.6.

1821 d. When mitigation is built into project design, it must be conducted in accordance with
1822 the requirements at 7.3.P.6 which require post mitigation testing.

1823 e. If mitigation is not built into project design, radon testing and a radon report must be
1824 submitted to HUD after construction is complete but prior to HUD's Final Inspection.
1825 If testing results are above the threshold, retrofit mitigation pursuant to the
1826 requirements at 7.3.P.6. is required.

1828 14. New Construction: All new construction projects must follow radon resistant
1829 construction requirements.

1830
1831 a. ANSI/AARST CC-1000 (most recent version) is the construction standard for large
1832 buildings.

1833
1834 b. ANSI/AARST CCAH (most recent version) is the construction standard for single
1835 family buildings (1-family, 2-family, townhouses). This standard may be appropriate
1836 for a small number of Section 232 projects. An example would be a large main
1837 building (which must comply with CC-1000) with several duplex residences (which
1838 must comply with CCAH) around the main building. Radon resistant construction is
1839 required for all radon zones.

1840
1841 c. Radon reports are required with the post-construction testing prior to HUD’s Final
1842 Inspection. If post-construction testing results are above the threshold, the project
1843 must be brought into compliance by activating the mitigation system or through
1844 retrofit mitigation.

1845
1846 d. All testing and mitigation required as a result of this testing must be performed by, or
1847 under the direct supervision of a Radon Professional, in accordance with the protocols
1848 referenced in this section.

1849
1850 **Q. Site Contamination and Toxic Substances (24 CFR 50.3(i)):**

1851 1. Phase I Environmental Site Assessment (Phase I ESA)

1852 2. Phase II Environmental Site Assessment

1853 3. Remediation Plans – General

1854 4. Remediation Plans – Complete Removal of Contamination

1855 5. Remediation Plans – Incomplete Removal of Contamination

1856 6. Monitoring Wells, Flushing Wells, or Testing Wells

1857 7. Off-site Contamination

1858 8. Escrow

1859 9. Waivers

1860 10. LSTF Approvals and Reviews

1861 11. Superfund Sites

1862 12. Unacceptable Sites

1863
1864 The purpose of this section is to identify contamination on or affecting a site, other than
1865 contamination from in-place building components such as asbestos containing materials (see
1866 Section 7.3.C) or lead-based paint (see Section 7).3.N), and ~~second,~~ to ensure that any
1867 contamination so identified, is mitigated to the point where it would be unlikely to “affect the
1868 health and safety of occupants or conflict with the intended utilization of the property” as stated
1869 in HUD-wide policy at 24 CFR 50.3(i)(1). Laboratory analysis may reveal naturally occurring

1870 [contaminants in the pathway vectors \(air, water, groundwater, soil or sediment\) surrounding the](#)
1871 [proposed HUD-assisted project at levels that pose a health or safety risk to sensitive receptors.](#)
1872 [Mitigation might be required depending on the intended use of the proposed project, the](#)
1873 [direction, the transmissivity, the proximity and the use of the pathway vectors with respect to the](#)
1874 [location of the proposed project. Specific requirements for radon are described in Section 7.3.P.](#)
1875

1876 Any potential contamination issues should be discussed with HUD as soon as possible. It is
1877 recommended that lenders consult with HUD before a Phase II ~~ESA~~[Environmental Site](#)
1878 [Assessment \(ESA\)](#) is prepared.
1879

1880 1. **Phase I Environmental Site Assessment ([Phase I](#) ESA):**

1881
1882 ~~Submission:~~The Lender ~~shall~~[must](#) submit a complete ~~and final~~ Phase I ESA with the
1883 mortgage insurance application. A summary or “draft” submission is not acceptable.
1884 The Lender ~~and/or the Borrower~~ must inform the ESA preparer of all of the following
1885 Phase I ESA requirements:
1886

- 1887 a. **Purpose:** The Phase I ESA will make an initial determination as to the presence
1888 of “hazardous substances” as defined by CERCLA, and of petroleum and
1889 petroleum products. ~~In addition, a purpose of the Phase I ESA~~[The Phase I ESA](#)
1890 [can meet EPA’s All Appropriate Inquiry requirements for CERCLA liability](#)
1891 [protection for the property owner. However, HUD’s purpose](#) is to document
1892 compliance with 24 CFR 50.3(i), which states HUD’s policy that all properties for
1893 use in HUD programs be free of hazardous materials, contamination, toxic
1894 chemicals and gases, and radioactive substances, where a hazard could affect the
1895 health and safety of occupants or conflict with the intended utilization of the
1896 property. This purpose must be described in the “Purpose” subsection of the
1897 required “Introduction” Section of the Phase I ESA. To meet this purpose, in
1898 addition to the standard Phase 1 determination of whether Recognized
1899 Environmental Conditions (RECs) have been identified in connection with the site,
1900 the Evaluation section’s discussions on Findings, Opinions and Conclusions
1901 should state whether further investigations or corrective actions are recommended
1902 to meet 24 CFR 50.3(i).
1903 [Phase I ESA](#)
- 1904 b. **Format:** The Phase I ESA must be prepared in accordance with the requirements of
1905 ASTM E1527-~~13~~, [21 \(most recent EPA-adopted edition\)](#), “Standard Practice for
1906 Environmental Site Assessments: Phase I Environmental Site Assessment Process” ~~(or~~
1907 ~~most recent edition), using~~”. [The Phase I ESA must utilize](#) the table of contents and
1908 report format specified in [Appendix X4 therein](#)~~the standard~~. The Phase I ESA must
1909 incorporate a vapor encroachment screen performed in accordance with ASTM E 2600-
1910 ~~1022~~ (or most recent edition). The Phase I must clearly indicate that HUD is an
1911 authorized user of the report.
1912 [Phase I ESA](#)
- 1913 c. [The Phase I ESA will be posted in HEROS and will be available to the public for](#)
1914 [one year after the completion of HUD’s environmental review.](#)

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e.d. Timing: The Phase I ESA must be conducted (meaning the earliest of the date of the site visit, records review, or interviews) within one year of the mortgage insurance application’s submission date to HUD. However, a Phase I ESA that was conducted more than 180 days prior to the submission date to HUD, but within the allowable one-year period, must be updated pursuant to Section 4.6 of ASTM E1527-~~13 (or similar section of the 21~~ (most recent [EPA-adopted](#) edition). A Phase I ESA originally prepared more than one year prior to submission to HUD, even if updated within 180 days of submission to HUD, is not acceptable. The ESA timing requirements cannot be waived.

[Phase I ESA Professional](#)

e.e. Preparers’ Qualifications: The Qualifications of Environmental Professionals section of the Phase I ESA must describe the preparer’s qualifications. [The Environmental Professional preparing the Phase I ESA must meet all of the qualification requirements of Appendix X2 of ASTM E1527 \(most recent EPA-adopted edition\).](#)

f. Vapor Encroachment Screen: (VES): The Phase I ESA must incorporate an initial vapor (a.k.a. gas) encroachment screen [following ASTM E2600-22 \(or most recent EPA-adopted edition\)](#) to determine if there is a potential for vapors to occur in the subsurface below existing and/or proposed on-site structures. Those hazardous substances may be petroleum and petroleum products that consist of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC) and inorganic volatile compounds. The vapor encroachment screen shall be performed using Tier 1 “non-invasive” screening pursuant to ASTM E2600-~~1022~~ “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions,” [Section 8](#) (or [similar section of the most recent edition](#)). If the Tier 1 vapor encroachment screen determines that, as indicated in ASTM E2600-~~10~~ [Section 8.7.1 \(or similar section of the most recent edition\), 22](#), there is a “vapor encroachment condition” (VEC), which is the “presence or likely presence” of such vapors in the subsurface below existing and/or proposed on-site structures, ~~a likely VEC~~, or that a VEC “cannot be ruled out”, it ~~shall also be deemed to be a REC for purposes of~~ [must be reviewed under](#) the Phase I ESA. ~~Analyses regarding the VES must be to determine if it is a REC as per ASTM E1527. The Vapor Encroachment Screen analyses must be included in their own section in the Phase I ESA report, and also integrated within into the various findings, opinions and conclusions~~ sections of the Phase I ESA.

g. Underground Storage Tanks (USTs):

[When an underground storage tank \(UST\) containing, or previously containing, hazardous waste or petroleum products exists on the project site, HUD will require information to evaluate the environmental risk that the UST presents. The Phase I ESA must determine if the UST is considered a REC, and if so, the REC must be satisfactorily addressed before the application is submitted. This means the REC must be addressed in accordance with Handbook Requirements. See 7.3.Q.2 through 7.3.Q.5.](#)

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- When an onsite UST is regulated by the State, including testing and inspection protocols, provide documentation that confirms compliance with the State’s regulations.
- Active UST: When a UST is not subject to State testing and inspection protocols, the UST and its service lines must pass an integrity test prior to the submission of an application for Mortgage Insurance. The test must occur no earlier than one year prior to the application’s submission to HUD. In addition, an operations & maintenance plan must be submitted that includes periodic testing of the tank and its service lines, as well as repair, maintenance, and emergency response procedures. The implementation of the plan will be a condition of approval. The owner must certify that all applicable personnel are trained and familiar with the plan.
- Out of Service UST: Any UST that is no longer in service, or that is planned to be taken out of service, must be removed or closed in place in accordance with LSTF requirements. Removal of a UST must occur prior to the application submission. This is due to the potential for contamination to be encountered during, or following, the UST removal.

When a UST was previously removed from the property or abandoned in place, HUD will require information to evaluate the environmental impact that the UST may have on the site. Include information such as removal/closure documentation and Phase II study results in the Phase I ESA. The Phase I ESA must determine if the former UST is considered a REC, and if so, the REC must be satisfactorily addressed before the application is submitted.

e-h. Findings Section: The Findings section of the Phase I ESA must list all known or suspect Recognized Environmental Conditions (REC), Controlled Recognized Environmental Conditions (CREC), Historical Recognized Environmental Conditions (HREC), and de minimis conditions (such as minor soil staining). The Findings section must also list VECs, likely VECs, and circumstances in which a VEC cannot be ruled out.

i. Opinions Section: The Opinions section, pursuant to section 12.6 of ASTM E1527-13 (or similar section of the most recent edition), must discuss the impact on the property of conditions identified in the Findings section, and provide rationale for concluding that a condition is or is not ~~currently a REC~~ a REC, pursuant to Section 12.6 of ASTM E1527 (most recent HUD-Approved edition). The justification for any Finding deemed not to be a REC must be included in the Opinions section. If the Phase I ESA preparer cannot make a statement as to whether a condition is or is not a REC, the Opinions section must state what information or further investigation— e.g. gaining access to a building (a so called “data gap” per section 12.7), but not including a Phase II ESA—would be deemed

2006 necessary to make such a determination. -The ESA preparer must also identify any
2007 data gaps and state whether the data gaps are significant.

2008
2009 When previous remediation has been performed or is ongoing, i.e., not yet an
2010 HREC at the proposed site, the Phase I ESA must fully discuss the extent of such
2011 remediation in the Opinions section, including any involvement of LSTF
2012 Authorities. The Phase I ESA preparer must justify whether such ongoing
2013 remediation should resolve any RECs or undecided issues identified in the ESA.
2014

2015 Note: ~~Even that even~~ if the ~~environmental professional~~ Environmental Professional
2016 preparing the Phase I ESA determines that a Finding does not rise to the level of a
2017 REC, HUD may ~~nevertheless determine that there is a business environmental risk~~
2018 ~~that requires testing and/or remediation.~~ determine that the finding warrants Phase
2019 II investigation based on HUD’s regulations at §50.3(i).
2020

2021 j. **Conclusions Section:** The Conclusions Section must make a determination of
2022 whether a REC, including a CREC, exists on the site in accordance with one of the
2023 two statements at Section 12.87 of ASTM E1527-13 ~~(or similar section of the most~~
2024 ~~recent edition),~~ i.e.:

- 2025
2026 • “We have performed a Phase I Environmental Site Assessment in
2027 conformance with the scope and limitations of ASTM Practice E 1527 of
2028 [insert address or legal description], the property. Any exceptions to, or
2029 deletions from, this practice are described in Section [] of this report. This
2030 assessment has revealed no evidence of recognized environmental conditions
2031 in connection with the property,” or
2032
- 2033 • “We have performed a Phase I Environmental Site Assessment in
2034 conformance with the scope and limitations of ASTM Practice E 1527 of
2035 [insert address or legal description], the property. Any exceptions to, or
2036 deletions from, this practice are described in Section [] of this report. This
2037 assessment has revealed no evidence of recognized environmental conditions
2038 in connection with the property except for the following: (list).”
2039

2040 k. Evaluation Section: In addition to the standard Phase I determination of whether RECs
2041 have been identified in connection with the site, the Evaluation section’s discussion of
2042 Findings and Conclusions should state whether further investigation or corrective action
2043 is recommended to meet 24 CFR 50.3(i).
2044

2045 f.1. User Provided Information Section: The Borrower and the current property
2046 owner, if different from the Borrower, shall complete the User Questionnaire(s)
2047 ~~according to as per~~ Appendix X3 of ASTM E1527-13 ~~(or similar section of the~~
2048 ~~most recent edition).~~ The User Questionnaire(s) must be included in the “User
2049 Provided Information Section” of the Phase I ESA, and the preparer must take into
2050 account any information provided in the User Questionnaire(s) in the preparation

2051 of the Phase I ESA.

2052
2053 ~~g.m.~~ **Testing Not Required:** The Phase I ESA does not require sampling and testing,
2054 ~~which will be performed during the course of a. A~~ Phase II ESA or ~~as part of a~~
2055 ~~remediation plan. However, if required, would include sampling and testing (see~~
2056 ~~Section 7.3.Q.2 below). If a Phase II ESA had been previously completed at the~~
2057 ~~property,~~ the Phase I ESA ~~may~~ **must** reference and discuss ~~any~~ prior Phase II ESA
2058 ~~performed in general accordance with ASTM E1903-11 (or most recent edition),~~
2059 including whether a condition is a REC.

2060
2061 ~~h.n.~~ **Lead-based Paint (LBP) Chips:** During any proposed repair work, the removal
2062 and disposal of LBP must be performed in accordance with regulations as
2063 published and enforced by the State and the Department of Labor - Occupational
2064 Safety and Health Administration (OSHA), ~~and, if the property is covered by~~
2065 ~~HUD's Lead Safe Housing Rule (24 CFR Part 35, subparts B – R), as described at~~
2066 ~~Section 7.3.N above, by that HUD regulation.~~

2067
2068 LBP chips that are not inside or part of a structure may be deemed to be a
2069 hazardous substance ~~under CERCLA (see EPA document referenced at Section~~
2070 ~~7.3.C.1.c.(5) below). Therefore, if there is or was a structure on the site that was~~
2071 ~~built prior to 1978 (when the use of LBP was discontinued), any evidence of paint~~
2072 ~~chips not inside or part of any current structures must be discussed in the "Site~~
2073 ~~Reconnaissance" section of the Phase I ESA, must be listed in the Findings~~
2074 ~~Section, and must be discussed further as to whether the paint chips are either a~~
2075 ~~REC or a de minimis condition in the Opinions section.~~

2076
2077 ~~i.o.~~ **Previous Remediation:** When previous remediation has been performed, or
2078 remediation is currently taking place, the Phase I ESA must fully document the
2079 ~~status of such~~ remediation, including any involvement from local, state, tribal, or
2080 Federal (LSTF) authorities, ~~No Further Action (NFA) letters as discussed in~~
2081 ~~Section 7.3.Q.5.d.iii below, and narrative descriptions of any on-going remediation~~
2082 ~~work and monitoring. The Phase I ESA must discuss whether the previous or~~
2083 ~~ongoing remediation is consistent with current applicable LSTF unrestricted~~
2084 ~~standards.~~

2085 ~~j.a.~~ **Evaluation of the Phase I ESA:** ~~The Phase I ESA will be evaluated by HUD.~~
2086 ~~HUD may require additional information or a Phase II ESA based on Findings that~~
2087 ~~indicate an unacceptable business environmental risk. Any Phase I ESA that~~
2088 ~~identifies a Recognized Environmental Condition requires a Phase II ESA, unless~~
2089 ~~it can be determined from the Phase I ESA that corrective action is not feasible. If~~
2090 ~~no corrective action is feasible, HUD may reject the property.~~

2091 ~~2.1.~~ **Phase II ESA**

2092
2093
2094 ~~1. Purpose:~~ ~~The purpose of the Phase II ESA is to ascertain by chemical testing of~~
2095 ~~samples and within the requirements of ASTM E1903-11, "Environmental Site~~
2096 ~~Assessments: Phase II Environmental Site Assessment Process," (or most recent~~

2097 edition) whether the RECs and/or business environmental risks identified from the
2098 Phase I ESA have resulted in the presence of “hazardous substances” as defined by
2099 CERCLA, and/or of petroleum and petroleum products at levels that would exceed
2100 the Statewide, non-site specific criteria (de minimis levels).

2101
2102 2. ~~Timing:~~ The Phase II ESA shall be submitted at the same time as the Phase I ESA.
2103 For new construction or substantial rehabilitation using the initial stage of processing,
2104 the Phase II ESA, if required, must be submitted by the Lender at the initial stage of
2105 submission.

2106
2107 ~~a. **When Required:** A Phase II ESA is required if:~~

- 2108 a. ~~The Phase I ESA indicates that there is a REC and corrective action is~~
2109 ~~potentially feasible,~~
- 2110 b. ~~The Phase I ESA comes to no definite conclusion regarding the presence of a~~
2111 ~~REC, or~~
- 2112 c. ~~HUD requires a Phase II ESA for business environmental risk reasons that are~~
2113 ~~described to the Lender.~~

2114
2115 3. ~~Exception to the Phase II Submission Requirement:~~ In cases where it is obvious that
2116 remediation will be required, with HUD’s permission, a separate Phase II ESA may
2117 be bypassed and instead incorporated within the “site characterization” segment of
2118 the remediation plan referenced in Section 7.3.C.1 below.

2119
2120 4. ~~Standards to Use:~~ The Phase II ESA is to be performed pursuant to the logic model
2121 of ASTM E1903-11, Section 7 (or similar section of the most recent edition),
2122 including developing the conceptual model and validation.

2123
2124 5. ~~Report Format:~~ The Phase II ESA must be prepared in accordance with the
2125 requirements of ASTM E1903-11, using the table of contents and report format
2126 specified in Appendix X3.2 as amended by X3.3 (or similar section of the most recent
2127 edition). Some of the steps that a Phase II assessor might perform may be intuitive in
2128 nature, but they nevertheless must be included in the report so as to ensure its
2129 scientific validity.

2130
2131 ~~k.p.~~ **Historical Recognized Environmental Conditions (HREC):** If the Phase I ESA
2132 indicates that there is a HREC as described in ASTM E1527-13 ~~(or (most recent~~
2133 HUD-approved edition), i.e., a hazard has been remedied and an LSTF Authority
2134 has issued a No Further Action (NFA) letter or similar approval, HUD may either
2135 deem the NFA letter as the completion of the remediation or it may require a Phase
2136 II ESA and/or further remediation.

2137
2138 ~~q.~~ **Evaluation of the Phase I ESA:** The Phase I ESA will be evaluated by HUD to
2139 determine if the property is acceptable for the hazards reviewed. HUD may
2140 require additional information or a Phase II ESA based on Findings that indicate an
2141 unacceptable risk under HUD’s regulations at §50.3(i), or an unacceptable
2142 business risk. Any Phase I ESA that identifies a REC requires a Phase II ESA.

2143 unless it can be determined from the Phase I ESA that corrective action is not
2144 feasible. If no corrective action is feasible, HUD may reject the property.

2145
2146 2. Phase II Environmental Site Assessment:

- 2147
2148 a. **Purpose:** The purpose of the Phase II ESA is to determine if the RECs and/or risks
2149 related to HUD’s regulations identified in the Phase I ESA have resulted in the
2150 presence of hazardous substances or petroleum products at levels that exceed
2151 unrestricted use criteria (de minimis levels).
- 2152
2153 b. **Timing:** The Phase II ESA shall be submitted at the same time as the Phase I ESA
2154 (see 7.3.Q.1 above).
- 2155
2156 c. **When Required:** A Phase II ESA is required if:
- 2157 • The Phase I ESA indicates that there is a REC; or
 - 2158 • HUD requires a Phase II ESA for reasons that are described to the Lender,
2159 including that the Phase I indicates an unacceptable risk under HUD’s regulations
2160 at §50.3(i).
- 2161
2162 d. **Standard to Use:** The Phase II ESA must be prepared in accordance with ASTM
2163 E1903-19, “Standard Practice for Environmental Site Assessments: Phase II
2164 Environmental Site Assessment Process”, Section 7 (or similar section of the most
2165 recent edition), including developing the conceptual model and validation.
- 2166
2167 e. **Report Format:** The Phase II ESA must be prepared in accordance with the
2168 requirements of ASTM E1903, using the table of contents and report format specified
2169 in the standard (or similar section of the most recent edition). Some of the steps that a
2170 Phase II assessor might perform may be intuitive in nature, but they nevertheless must
2171 be included in the report to demonstrate its scientific validity.
- 2172
2173 f. **Exception to Separate Submission Requirement:** In cases where it is obvious that
2174 remediation will be required, with HUD’s approval, the Phase II ESA report may be
2175 incorporated within the “site characterization” segment of the remediation plan
2176 referenced in Section 7.3.Q.3.a below.
- 2177
2178 b.g. **Nature and Extent of the Study:** The Phase II ESA need not necessarily be a
2179 complete site characterization (total nature and distribution) of contamination, but
2180 must proceed to a point where it indicates the location of greatest concentration and
2181 risk-, taking into consideration all of the Recognized Environmental Conditions
2182 (RECs) identified in the Phase I ESA or other hazards that affect the health and safety
2183 or occupants or conflict with the intended utilization of the property. However, when
2184 the existence of elevated levels of contaminants is confirmed, a complete “site
2185 characterization” will be required as a first step in remediation per Section
2186 7.3.C.4Q.3.a below.
- 2187

2188 **e.h. Vapor Encroachment/Vapor Intrusion:** If it is determined that there is a potential
2189 for vapors to occur in the subsurface below existing and/or proposed on-site
2190 structures, ~~either identified from the Phase I ESA as a REC or from this or a prior~~
2191 ~~Phase II ESA,~~ the Phase II ESA shall include either a Tier 2 vapor encroachment
2192 screen (per ASTM E2600-~~1022~~, Section 9 (or similar section of the most recent
2193 edition)), a vapor intrusion assessment (VIA) pursuant to LSTF policy and/or
2194 procedure (as discussed in ASTM E2600-~~1022~~, Appendix X7-~~1~~ (or similar section of
2195 the most recent edition)), or go directly to a Tier 4 “mitigation” (per ASTM E2600-
2196 ~~1022~~, Appendix X7-~~1~~ ~~or 7.2~~ (or similar section of the most recent edition)).

- 2197
- 2198 • If a Tier 2 screen was performed and it determined that there was a VEC, a likely
2199 VEC, or that a VEC could not be ruled out, either a VIA pursuant to LSTF policy
2200 and/or procedure or Tier 4 “mitigation” (per ASTM E2600-~~1022~~, Appendix X7-~~1~~
2201 ~~or X7.2~~ (or similar section of the most recent edition)) is required.
- 2202
- 2203 • If a VIA was performed, any mitigation (or remediation) deemed necessary must
2204 follow LSTF policy and/or procedures: or go through a Tier 4 “mitigation” (per
2205 ASTM E2600-15, Appendix X7 (or similar section of the most recent edition)).
- 2206

2207 **e.i. Phase II Conclusion:** The Phase II ESA must conclude that either:

- 2208 • There are “hazardous substances” as defined by CERCLA, and/or petroleum
2209 ~~and/or petroleum~~ products and/or other hazards that HUD considers an
2210 environmental risk under §50.3(i), at levels that exceed the ~~Statewide, non-site~~
2211 ~~specific~~ LSTF unrestricted criteria and list any chemicals so found, or
- 2212 • No hazardous substances, petroleum or petroleum products or environmental risks
2213 under §50.3(i) have been identified above ~~de minimis levels~~ LSTF unrestricted
2214 criteria.

2215

2216 **j. ~~Off-site contamination conclusion:~~ Off-Site Contamination:**

2217 i. The Phase II ESA must address the risk of off-site contamination migrating on to
2218 the proposed site including if:

- 2219 • There is no known or perceived off-site contamination in the vicinity of the
2220 proposed site;i
- 2221 • It is unlikely that any known or perceived off-site contamination will migrate
2222 on to the site;i or;
- 2223 • It is likely that known or perceived off-site contamination will migrate on to
2224 the site.

2225

2226 ii. Off-Site Contamination Remediation: If there is known or perceived off-site
2227 contamination in the vicinity of the project site, the preparer must describe any
2228 remediation underway for the off-site contamination, and whether the remediation
2229 has effectively brought migration under control.

2230

2231 e.k. Conformance to LSTF Requirements: The Phase II ESA written report must
2232 describe how it conforms to any applicable LSTF requirements and must include a
2233 detailed, common language summary.
2234

2235 f.l. Exception of ~~requirement~~ Requirement for Phase II ~~preparation and~~
2236 ~~submission~~ Submission for ~~ongoing remediation~~ Ongoing Remediation: A Phase II
2237 ESA is not required when remediation is ongoing to the point of not yet being an
2238 HREC (~~see Section 7.3.A.1.f, above~~), if the Phase I ESA preparer states that such
2239 remediation should resolve any RECs and undecided Phase I ESA issues (see
2240 “Opinions Section” 7.3.AQ.1.gi, above), and ~~if~~ the remediation plan preparer
2241 indicates that all of the Phase II ESA requirements have been met.
2242

2243 J.—Remediation Plans – General:

2244 3. Remediation plans are required if the Phase II ESA ~~cannot make the determinations~~
2245 ~~required by Section~~ concludes that hazardous waste or petroleum products are present at
2246 ~~levels that exceed LSTF unrestricted (de minimis) criteria~~ 7.3.B.10.b, and B.11.a or B.11.b.
2247 /or that it is likely that known or expected off-site contamination will migrate on to the site.
2248

2249 The following requirements apply to all remediation plans:
2250

2251 a. Complete site Site **characterization.**

- 2252 i. Anytime a site has been identified from a Phase I or Phase II ESA as
2253 having contamination (or contamination exposure pathways), be it
2254 vapor (gas), liquid, solid, dissolved, or non-aqueous phase liquid
2255 (NAPL), above LSTF residential/unrestricted criteria (de minimis
2256 levels;) a complete site characterization (sometimes known as a
2257 special site assessment report, a remedial investigation report, a
2258 detailed Phase II ESA, or a Phase III ESA) must be prepared as the
2259 initial step of any remediation plan.
2260
- 2261 ii. Such a report must determine the total horizontal nature and vertical
2262 extent distribution of such contamination, exposure pathways, and
2263 potential receptors (a.k.a., a conceptual site model). However, if the
2264 remediation plan preparer determines that the Phase II ESA preparer
2265 has already determined the total nature and distribution of such
2266 contamination, exposure pathways and potential receptors, then such
2267 determination shall be so indicated and the Phase II ESA shall be made
2268 a part of the remediation plan.
2269
- 2270 iii. The report must ~~also~~ be based on LSTF requirements, or on the
2271 appropriate combination of the following ASTM Practices and Guides
2272 (or similar section of the most recent edition), as amended, as
2273 determined by the remediator’s environmental investigator. ~~Lesser~~
2274 ~~degrees of site assessments or non-conformance are not acceptable.~~
2275 For lead contaminated sites, refer to the listed EPA Handbook.

- 2276 i. ~~D6235-04, “Practice for Expedited Site Characterization of Vadose~~
2277 ~~Zone and Groundwater Contamination at Hazardous Waste~~
2278 ~~Contaminated Sites”~~
2279 ii. ~~E1689-95, “Standard Guide for Developing Conceptual Site Models~~
2280 ~~for Contaminated Sites”~~
2281 iii. ~~E1903-11, “Standard Guide for Environmental Site Assessments:~~
2282 ~~Phase II Environmental Site Assessment Process”, as amended~~
2283 iv. ~~E1912-98, “Guide for Accelerated Site Characterization for Confirmed~~
2284 ~~or Suspected Petroleum Releases”~~
2285 v. ~~EPA, Superfund Lead Contaminated Residential Sites Handbook,~~
2286 ~~2003~~
2287 a. ~~All of the requirements of Sections 7.3.C.2, 3, and 4 below must be met.~~
2288 b. ~~The report must discuss how it complies with the listed Practices or Guides~~
2289 ~~and/or the appropriate LSTF procedures.~~
2290 c. ~~The report must indicate how it meets the requirements of any applicable~~
2291 ~~LSTF regulatory procedures.~~
2292
2293 b. Any remediation studies and plans must be in the form of a report that includes
2294 a detailed, common language summary ~~and discusses how it meets the listed~~
2295 ~~Practices or Guides and/or the appropriate LSTF procedures.~~
2296
2297 **c. Timing of Submissions:**
2298 i. Any remediation studies and plans, including the “site
2299 characterization” as described in Section 7.3.C.1.Q.3.a above, must be
2300 presented to HUD with the Firm Commitment application; i.e., at the
2301 same time as the Phase I ESA and, if applicable, the Phase II ESA.
2302
2303 ii. Evidence of approval of the remediation plan by the LSTF Authority
2304 must be submitted with the application submission.
2305
2306 ~~iii.~~ For new construction or substantial rehabilitation projects using the
2307 initial stage of Firm Commitment processing, the remediation plan and
2308 evidence of approval of the plan by the LSTF Authority must be
2309 submitted with the initial submission.
2310
2311 d. The remediation plan preparer’s qualifications must be discussed in any
2312 remediation reports.
2313
2314 ~~ii.i. Evidence of approval of the remediation plan by the LSTF Authority~~
2315 ~~must be submitted with the application submission.~~
2316
2317 e. The remediation plan must cover all relevant contaminant phases: vapor (gas),
2318 liquid, solid, dissolved, and NAPL.
2319

- 2320 f. The remediation plan must require either ~~the~~:
- 2321 i. ~~The removal of contamination (bringing the contamination to de~~
2322 ~~minimis levels)~~ LSTF unrestricted criteria pursuant to Section 7.3.~~DQ.4~~
2323 (Remediation Plans – Complete Removal of Contamination); or
2324 ~~incomplete~~
- 2325 ~~i.~~ ii. Incomplete removal of contamination in the form of a Risk-Based
2326 Corrective Action to meet residential use criteria, pursuant to
2327 ~~section~~ Section 7.3.E.Q.5 (Remediation Plans – Incomplete Removal of
2328 Contamination).

2329

2330 **g. Remediation Timing—:**

- 2331 i. Uncertain Determination of Cost and/or Effectiveness of Remediation:
2332 If HUD determines that it is uncertain whether implementation of the
2333 remediation plan will meet the requirements of either 7.3.~~D or~~
2334 7.3.E.Q.4 or 7.3.Q.5, after completion of the HEROS Environmental
2335 Review, the remedial work must be completed, including clearance
2336 testing, and the remediation itself must be approved by the LSTF
2337 authority, including issuance of any clearance and closure documents,
2338 prior to the issuance of the Firm Commitment.
- 2339
- 2340 ii. ~~Remediation Timing—~~Definitive Determination of Cost and
2341 Effectiveness of Remediation: If the extent of contamination can be
2342 definitively determined and the cost of removing that contamination
2343 can be specified pursuant to a contract for remediation (see
2344 Monitoring, Flushing or Testing Wells, Section 7.43.Q.6), HUD may
2345 allow a remediation plan that has been approved by the LSTF
2346 authority that:
- 2347 a. ~~permits~~ Permits the remediation including site testing, any
2348 clearance and closure documents, and the approval by the
2349 LSTF, prior to initial closing, or
2350 ~~if~~
- 2351 b. If the applicant can show cause why it would be impractical to
2352 complete the remediation prior to initial closing, permits the
2353 remediation including site testing, any clearance and closure
2354 documents, and final approval by the LSTF, prior to both final
2355 closing and initial occupancy. Note that for projects with a
2356 single loan closing, such as 232/223(f) projects, the
2357 remediation and approvals must be complete prior to the single
2358 loan closing.

- 2359
- 2360 **f.h. Disclosure protection during the course of remediation activities.** All
2361 persons living or regularly working on site while remediation is taking place
2362 shall be duly informed and protected from contamination. This requirement
2363 must be a part of the remediation plan.
- 2364

2365 ~~g.i.~~ **Remediation contract insurance.** Unless HUD determines otherwise, the
2366 remediation contract shall require cost cap and reopener insurance coverages,
2367 copies of which are to be included in the remediation plan.
2368

2369 ~~h.j.~~ **Ongoing Remediation.** If remediation is taking place, or has been completed
2370 but has yet to receive final approval by the LSTF at the time of submission of
2371 the Phase I ESA, the remediation plan and all remediation studies shall be
2372 submitted, along with a detailed common language summary, at the same time
2373 as the Phase I ESA.
2374

2375 4. Remediation Plans – Complete Removal of Contamination:

- 2376
- 2377 a. General Requirements: Except for those situations where Section 7.3.~~EQ.5~~
2378 (Remediation Plans – Incomplete Removal of Contamination) below applies,
2379 the Lender must submit a remediation plan designed to bring the
2380 contamination identified by the ~~complete~~ “site characterization” per Section
2381 7.3.~~C.1.Q.3.a~~ to ~~de minimis~~ LSTF unrestricted criteria levels ~~or eliminated to~~
2382 ~~the extent necessary to meet the LSTF authority standards~~, with no active or
2383 passive remediation. There must not be any need for engineering controls,
2384 institutional controls, or monitoring wells.
2385
- 2386 b. All of the requirements of Section 7.3.~~EQ.3~~ (Remediation Plans) must be met.
2387
- 2388 c. Offsite Contamination, Groundwater Contamination and/or Vapor Intrusion
2389 Mitigation: A remediation plan that involves control of off-site contamination
2390 and/or vapor intrusion remediation mitigation is not permitted under this
2391 section but may be allowed under Section 7.3.~~EQ.5~~, “Remediation Plans –
2392 Incomplete Removal of Contamination,” below.
2393

2394 5. Remediation Plans – Incomplete Removal of Contamination:

- 2395
- 2396 a. Justification: If the costs are deemed to be exorbitant and/or the feasibility is
2397 deemed impractical for remediation of on-site contamination to de minimis
2398 levels, or if there is known or expected offsite contamination that poses a risk
2399 to the project site, the remediation plan may allow for incomplete removal, as
2400 described below. Justification for such incomplete removal must be submitted
2401 along with the remediation plan. Such justification must include
2402 documentation that shows that the costs of the incomplete removal of
2403 contamination, including any life cycle costs for Operation and Maintenance,
2404 and any applicable enforcement requirements of LSTF authorities, are
2405 sufficiently below the costs of complete contamination removal. The extent
2406 of the contamination must be fully understood, including possible exposure
2407 pathways, as part of a Risk-Based Correction Action (RBCA).
2408

2409 ~~2. All of the requirements of Section 7.3.C must be met.~~
2410

- 2411 3. ~~The corrective action must be a Risk Based Corrective Action (RBCA) based on the~~
2412 ~~appropriate combination of:~~
- 2413 a. ~~The following ASTM Guides and Practices (or their most recent edition), as~~
2414 ~~amended, as determined by the remediator's environmental investigator: (For~~
2415 ~~lead contaminated sites, refer to the listed EPA Handbook.)~~
- 2416 ~~—E1689-95 (2014), "Standard Guide for Developing Conceptual Site~~
2417 ~~Models for Contaminated Sites"~~
- 2418 ~~—E1739-95 (2015), "Standard Guide for Risk Based Corrective Action~~
2419 ~~Applied at Petroleum Release Sites"~~
- 2420 ~~—E1943-98 (2010), "Standard Guide for Remediation of Ground Water~~
2421 ~~by Natural Attenuation at Petroleum Release Sites"~~
- 2422 ~~—E2081-00 (2015), "Standard Guide for Risk Based Corrective Action"~~
2423 ~~—E2091-11, "Standard Guide for Use of Activity and Use Limitations,~~
2424 ~~Including Institutional and Engineering Controls"~~
- 2425 ~~—E2435-05 (2015), "Standard Guide for Application of Engineering~~
2426 ~~Controls to Facilitate Use or Redevelopment of Chemical-Affected~~
2427 ~~Properties"~~
- 2428 ~~—E 2616-09 (2014), "Standard Guide for Remedy Selection Integrating~~
2429 ~~Risk Based Corrective Action and Non Risk Considerations"~~
- 2430 ~~—E2600-10, "Standard Guide for Vapor Encroachment Screening on~~
2431 ~~Property Involved in Real Estate Transactions"~~
- 2432 ~~—For Lead Contaminated Sites. "EPA, Superfund Lead Contaminated~~
2433 ~~Residential Sites Handbook, 2003"~~
- 2434 b. ~~LSTF regulatory procedures may be followed in lieu of the ASTM Guides and~~
2435 ~~Practices listed above, when the remediator's environmental investigator~~
2436 ~~determines their equivalence or greater stringency.~~
- 2437
- 2438 b. LSTF requirements: The RBCA must always meet the requirements instituted
2439 by any applicable LSTF regulatory authority.
- 2440
- 2441 c. The RBCA report or other accepted cleanup program report(s) must:
- 2442 i ~~meet~~Meet all of the requirements for Section 7.3.E.3,
- 2443 ii ~~discuss~~Discuss how the remediation plan ~~meets~~complies with the
2444 applicable ~~ASTM Guides and Practices and~~LSTF regulatory
2445 procedures ~~as listed/discussed in Section 7.3.E.3 and 7.3.E.4 above,~~
- 2446 iii discussDiscuss how the remediation plan meets or will meet all of the
2447 requirements of Section 7.3.Q.5.d below, and
- 2448 e. ~~Discuss~~ how it meets or will meet all of the requirements of Section 7.3.E.6;
2449 ~~and~~
- 2450 ~~discuss how it meets or will meet all of the requirements of Section~~
2451 ~~7.3.F through 7.3.I below.~~
- 2452
- 2453 d. ~~Risk Based Corrective Action (The RBCA): The corrective action or other~~
2454 accepted cleanup program(s) must be ~~a RBCA~~supported by the applicable
2455 combination of:
- 2456 ~~d. Engineering and Institutional Controls (EC/IC).~~

2457 i.— An Engineering Control is a physical measure that reduces or
2458 eliminates exposure to contamination. An Institutional Control is a
2459 non-engineered instrument, such as administrative and legal control.
2460 ICs typically limit land and/or resource use or provide information that
2461 helps modify or guide human behavior at a site. An appropriate mix of
2462 engineering controlsECs, such as capping and slurry walls, and
2463 institutional controlsICs such as protective covenants ~~and~~, access
2464 restrictions ~~are~~, and employee notification, is usually required for all
2465 RBCAs, ~~and shall follow the guidance in ASTMs E2435-05 and~~
2466 E2091-05 (or most recent editions). ~~The RBCA must indicate how it~~
2467 met these Guides.

2469 ~~LSTF regulatory provisions may be followed in lieu of these ASTM~~
2470 ~~Guides, or other accepted cleanup programs as amended, when the~~
2471 ~~remediator's environmental professional determines their equivalence.~~

2472
2473 i Operations and Maintenance Plan (O&M) Plan: ~~Any time there is an~~
2474 ~~EC/IC, there must also be an O&M plan which itself is an IC. The~~
2475 ~~O&M plan must be approved by the LSTF authority, and must discuss~~
2476 ~~any associated enforcement required by LSTF authorities. An O&M~~
2477 ~~plan must be in place for management of all contamination remaining~~
2478 ~~on the site and any controls thereof. If HUD determines that the~~
2479 ~~Borrower does not have sufficient capacity to manage the O&M plan,~~
2480 ~~the Borrower must contract with an appropriate service to do so. (See~~
2481 Section 7.4. for costing). EC/IC may include:

- 2482
2483 a) Hard/Soft Cap Engineering Control: A hard cap EC, such as
2484 concrete, generally is required if any contamination will remain
2485 on the site after final closing. Unless the applicant can justify
2486 why a lesser depth to contamination would be protective of the
2487 health and safety of occupants, the depth of any remaining
2488 contamination should be greater than the deepest of the
2489 following:
- 2490 i. the depth of the foundations of any existing or proposed
2491 structures including sumps,
 - 2492 ii. the depth of any existing or proposed utilities on site,
2493 and/or
 - 2494 iii. five feet below the surface.

2495
2496 In certain situations, HUD may allow for a soft cap (e.g. dirt) if
2497 other engineering controls such as an impenetrable geotextile
2498 fabric are included. Even if engineering controlsECs are not
2499 required for ~~such RBCAs, institutional controls (IC)~~ a soft cap,
2500 ICs are still required.

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b) Slurry Wall or Equivalent Engineering Control: A slurry wall or equivalent type EC may be required to prevent offsite contamination from migrating onsite, or to prevent onsite contamination from migrating onsite or offsite. If the Phase I and/or Phase II ESA determines that the likely existence of offsite contamination presents a risk to the site, such a slurry wall or equivalent type EC will be required.

b)c) Monitored Natural Attenuation and Enhanced Passive Remediation (MNA/EPR): MNA/EPR such as by bio-augmentation where no additional active input is required and passive engineering controls such as a slurry wall may be allowed as part of the RBCA. In such cases the LSTF authority must issue a conditional No Further Action (NFA) Letter or similar approval. Monitoring wells pursuant to the above RBCAs and meeting the requirements of Section 7.3.FQ.6 will be required to monitor the progress of the remediation. When MNA/EPR is part of the RBCA or other accepted cleanup program, the remediation may continue beyond initial endorsement for projects with an initial and final closing, provided that the LSTF authority has determined in writing that such undertakings would present no threat to health, safety or the environment. Note that for projects with a single loan closing, such as 232/223(f) projects, the remediation and approvals must be complete prior to the single loan closing.

d) Vapor Encroachment/Vapor Intrusion Mitigation: If a VEC is present, ~~a VEC is likely present, or a VEC cannot be ruled out as per an ASTM E2600 Tier 1 Vapor Encroachment Screen,~~ then mitigation as discussed in ~~ASTM E2600-10, Section 7.2 (or similar section of the most recent edition)~~ is, Appendix X7 is required, unless a vapor intrusion assessment (VIA) has been, or will be, performed pursuant to LSTF policy and/or procedure. When remediation goes directly from a Tier 1 screen or a Tier 2 screen, such controls shall, where feasible, consist of a poured-on vapor barrier to be used in conjunction with the active and passive venting systems.

e) Institutional Controls (IC) regarding groundwater contamination, if applicable, must be put in place. ~~and in accordance with ASTM E2600-10, Appendix X7.1 (or similar section~~

f) HUD may require ICs beyond LSTF requirements in order to support the ECs and ensure protection of the most recent

2547 edition)has determined that itresidents throughout the term of
2548 the mortgage.

2549
2550 ~~e)a) **Operations and Maintenance Plan (O&M) Plan:** Any time~~
2551 ~~there is an EC there must also be an O&M plan which itself is~~
2552 ~~an IC. The O&M plan must be approved by the LSTF~~
2553 ~~authority when applicable, and must discuss any associated~~
2554 ~~enforcement required by LSTF authorities. An O&M plan~~
2555 ~~must be in place for management of all contamination~~
2556 ~~remaining on the site and any controls thereof. If HUD~~
2557 ~~determines that the Borrower does not have sufficient capacity~~
2558 ~~to manage the O&M plan, the Borrower must contract with an~~
2559 ~~appropriate servicer to do so. in compliance with such policy,~~
2560 ~~or would be in compliance after instituting mitigation. When~~
2561 ~~remediation goes directly from a Tier 1 screen or a Tier 2~~
2562 ~~screen, such controls shall, where feasible, consist of a poured-~~
2563 ~~on vapor barrier to be used in conjunction with the active and~~
2564 ~~passive venting systems.~~

2565 ~~d)a) Institutional Controls (IC) regarding groundwater~~
2566 ~~contamination, if applicable, must be put in place.~~

2567 ii The O&M Plan must ensure maintenance of any engineering controls and assign
2568 responsibility for that maintenance. (See Section 7.6 for guidance on cost
2569 determination.)

2570
2571 iii No Further Action Letter (NFA): The LSTF authority must issue an NFA, or
2572 similar approval, except that a conditional NFA may be allowed pursuant to
2573 MNA/EPR ~~(see Section 7.3.E.6.a.5 above).~~ The ~~NFA or conditional NFA must be~~
2574 ~~issued pursuant to the time lines stated earlier in Section 7.3.C.8 and 9. Additionally,~~
2575 ~~the~~ LSTF authority must indicate in the NFA approval that the remediation that has
2576 taken place, or will take place, ~~is protective of~~ protects the health, and safety of
2577 occupants and does not conflict with the environmentintended utilization of the
2578 property. The remediation must meet LSTF residential use standards. The NFA must
2579 be submitted to HUD pursuant to the timeline specified in Section 7.3.Q.3.c.i or ii.

2580
2581 iv Groundwater Requirement: A site that is/will be otherwise acceptable may be
2582 approved if contamination exists in the groundwater after completion of remediation,
2583 if:

2584 a) Institutional controls (ICs) regarding the groundwater are/will be put in place,
2585 along with an O&M plan, approval by the LSTF authority, and any applicable
2586 enforcement requirements of LSTF authorities. Municipal restrictions on
2587 groundwater may substitute for LSTF approval if the restrictions are included as
2588 an IC on the property deed. The ICs must prohibit any and all uses of the
2589 groundwater; and.

2590
2591 b) The highest anticipated levels of groundwater based on high groundwater
2592 and/or 100 year flooding events, are below the levels of any construction or

2593 potentially anticipated utility work, unless it can be shown how such high
2594 groundwater levels will not modify the ~~nature~~horizontal and ~~distribution~~vertical
2595 extent of contamination to such a degree that it could affect the health and safety
2596 of residents and workers; and

2597
2598 c) Any vapors from groundwater and/or soils are shown not to present a significant
2599 risk pursuant to Tier 1 vapor encroachment assessment, Tier 2 vapor
2600 encroachment assessment, ~~VIA~~vapor intrusion assessment, or mitigation.
2601

2602 **iiy Safety of and Disclosure to Residents and Workers:** Any time contamination
2603 above de minimis levels is allowed to remain on site after initial occupancy and final
2604 closing, all ~~construction~~maintenance workers who might perform activities that could
2605 compromise the EC and/or IC, as well as construction workers, facility staff, and
2606 building residents and their representatives, etc. are to be informed of the general
2607 ~~nature~~type and ~~distribution~~extent of contamination and the protective measures that
2608 have been taken.
2609

2610 **ivi Hazardous Substance Quantification:** If any RBCA or other accepted remediation
2611 plan identifies hazardous substances listed in 40 CFR 302.4 that will remain on the
2612 property after final closing, such plan shall determine the quantity of such hazardous
2613 substances and whether it equals or exceeds the levels indicated at 40 CFR 373.2.
2614 (This is ~~a requirement~~information that HUD is required to report under CERCLA ~~that~~
2615 would apply to HUD at any time in the event that HUD ~~might~~will own the property or
2616 take over its management.)
2617

2618 6. Monitoring Wells, Flushing Wells, or Testing Wells:

2619
2620 a. **General Requirements:** The presence of a testing or monitoring well on the
2621 property does not bar the property from consideration for mortgage insurance. If a
2622 monitoring well is required ~~or exists~~ to confirm that contaminants have been removed
2623 to intended levels or to determine that an MNA/EPR is working properly, EC/IC will
2624 be required until such time as contaminants are reduced to ~~de minimis levels~~LSTF
2625 residential/unrestricted use criteria and a Final NFA letter is issued ~~by the LSTF~~
2626 Authority.
2627

2628 b. **Monitoring Well Protocols:** Monitoring protocols must be specified in the RBCA
2629 or other accepted program report, and monitoring must proceed ~~to the point that~~
2630 indicates that until contaminants have been removed to intended levels or it is
2631 determined that passive MNA/EPR is working properly.
2632

2633 c. **Off-site Contamination—Acceptability:** If a monitoring well is required or exists to
2634 determine if existing or assumed off-site contamination has migrated or might
2635 migrate on-site, the site is generally not acceptable unless associated EC/IC are put in
2636 place pursuant to an acceptable RBCA or other accepted program, or unless the
2637 LSTF authority provides a statement that such off-~~site~~-site contamination would not
2638 present a risk to the health of the project's occupants if it were to migrate on-site.

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- d. **Flushing Wells – Unacceptable:** In no case may final closing or initial occupancy take place when a flushing well is in operation or will be required.
- e. **Testing or Monitoring Wells Ordered by LSTF:** A testing or monitoring well may also be placed on the property by order of the LSTF. The well may test or monitor contamination on the site or from a neighboring site. If a monitoring well would be required or exists solely to monitor the general health of an aquifer used as a water supply or potential water supply, but not in relation to an existing or ~~potential~~potentially hazardous condition, it is not a bar to environmental approval. However, the Lender must notify HUD if there is any current or intended placement of a monitoring or testing well on the site.

- f. **Non-operating Wells:** Non-operating wells are not a barrier to environmental approval, but must be capped over and closed out ~~by~~pursuant to the appropriate LSTF authority.
7. **Off-site Contamination:** If the Phase I and/or Phase II ESA determines that the existence of off-site contamination presents a risk to the site or the residents of the project and the Borrower has no management control over the ~~offsite~~off-site locations of the contamination, the site is not acceptable unless such off-site contamination is subject to a RBCA or other accepted program meeting all of the requirements of Sections 7.3.~~Q.3~~ and ~~E~~7.3.Q.5.

~~K. Escrow: An escrow account must be set up and held by the Lender for the maintenance of any~~Any monitoring wells and engineering controls, such as caps or slurry walls.

- 8. ~~Waivers: If ORCF intends, may warrant an escrow account to waive any of the requirements in this~~be established by the Lender at Initial Endorsement to offset the cost of any ongoing maintenance. See Section 7.3 that are not regulatory in nature, the advice of the Housing Environmental Clearance Officer shall be obtained before the waiver is granted to ensure that such waiver is in compliance with the environmental requirements of 24 CFR 50.3(i)-6.A.4 (Underwriting) for further discussion.
- 9. **LSTF Approvals and Reviews:** Any approvals by an LSTF authority must be given directly by that authority and may not be given by a third party approved by that authority to act in lieu of the authority itself. Approvals by local authorities are only acceptable when such authority is acting under delegation from the State.

10. Superfund Sites: Consultation with the REO/FEO for projects that are located on or adjacent to a designated Superfund Site is strongly encouraged.

A site located on an existing or proposed Superfund site requires consultation with EPA. In addition, sites adjacent or proximate to a Superfund site may require consultation with EPA to confirm that the contamination will not impact the HUD site.

2685 a. Superfund National Priority List (NPL) Sites: The first step is to determine the
2686 extent to which EPA has completed a site characterization at the NPL site.

2687
2688 i In some cases EPA has conducted a remedial investigation or other
2689 characterization work that allows for an assessment of the area that includes
2690 the property of HUD interest, and EPA’s site characterization work may be so
2691 detailed and thorough that it can substitute for HUD requirements regarding
2692 an ASTM Phase II and/or a site characterization report. HUD would make the
2693 determination on the adequacy of available information to substitute for HUD
2694 requirements in conjunction with EPA and relevant state regulatory agencies.

2695
2696 ii In other cases EPA has conducted a remedial investigation or other
2697 characterization work at the site that shows the NPL site related contamination
2698 does not extend to the property that HUD may want to support. Examples
2699 include ground water at depth with no potential for vapor intrusion at levels of
2700 concern, or a very large site with uncontaminated areas within the boundary of
2701 the overall site.

2702
2703 iii Sometimes EPA has not yet completed a remedial investigation or other site
2704 characterization work for the area that includes the property of HUD interest.
2705 Generally, this will include sites that are newly listed to the NPL or very large
2706 sites. These sites generally undergo at least some characterization to ensure
2707 that there are no unacceptable risks that require immediate action.

2708
2709 iv Projects on existing or proposed NPL sites need written documentation from
2710 EPA (and sometimes also from the relevant LSTF authority) that the project is
2711 suitable for residential use. This written documentation can take four forms:

2712 (a). Where EPA has deleted the site from the NPL and published a
2713 deletion notice in the Federal Register. Because a site could be
2714 deleted from the NPL for a planned nonresidential use, HUD must
2715 confirm that the site is suitable for residential use.

2716 (b). Where EPA has issued a Site Wide Ready for Anticipated Use
2717 (SWRAU) status for the site. This indicates that the entire site is
2718 safe for the intended use and institutional and engineering controls
2719 are in place. Because a site could achieve SWRAU status for a
2720 planned nonresidential use, HUD must confirm that the SWRAU is
2721 for residential use.

2722 (c). Where EPA has issued a Ready for Reuse (RfR) Determination for
2723 the site. The RfR determination can apply to all of the site or to a
2724 part of the site where clean up or EC/IC has been implemented.
2725 HUD must consult with EPA to determine if the RfR determination
2726 applies to the proposed project site and that cleanup is to
2727 residential standards.

2728 (d). Where a site has not yet reached SWRAU or RfR status. In this
2729 case, HUD will need written documentation from EPA that an
2730 NPL site is suitable for residential use.

2731
2732 b. **Superfund Sites Not on the NPL:** Superfund sites that are not on the NPL will only be
2733 acceptable if the site is cleaned up to residential levels and HUD receives written
2734 documentation from EPA that the site is suitable for residential use.

2735
2736 c. **EC/IC Put in Place by EPA:** HUD must incorporate any EC/IC put in place by EPA
2737 into its environmental conditions and subsequent program commitments. HUD may
2738 impose additional ICs to ensure long term safety at the site. HUD must conduct its own
2739 due diligence at Superfund sites and may determine that the property is unacceptable for
2740 FHA mortgage insurance or other HUD assistance.

2741
2742 ~~10.11.~~ **Unacceptable Sites:** A site over a former solid waste landfill/dump ~~and/or Superfund~~
2743 ~~(National Priorities List (NPL)) site generally~~ site is not acceptable for development unless
2744 the hazardous substances, petroleum, and petroleum products are completely removed, ~~the~~
2745 ~~site is delisted, or for an NPL site only, the Federal Agency or~~ remediated to unrestricted
2746 residential standards and the LSTF with management authority over the site gives
2747 approval of the site for residential usage.
2748

2749 **R. Sole Source Aquifers:**

- 2750 1. Some aquifers are drinking water systems that may be impacted by development. The
2751 Safe Drinking Water Act of 1974 requires protection of drinking water systems that are
2752 the sole or principal drinking water source for an area and which, if contaminated, would
2753 create a significant hazard to public health.
- 2754
2755 2. New construction and Environmental Assessment level rehabilitation projects located
2756 within the boundaries of a sole source aquifer or the recharge area of a designated sole
2757 source aquifer must be reviewed by EPA for the potential to contaminate the sole source
2758 aquifer.
- 2759
2760 3. Additional information about sole source aquifers, including a national map of sole
2761 source aquifer locations, can be found at on the HUD Exchange website which can be
2762 accessed from the ORCF Environmental Resource page.
- 2763
2764 4. Some HUD regions have established MOUs or other agreements for HUD projects which
2765 can be found at on the HUD Exchange website which can be accessed from the ORCF
2766 Environmental Resource page.

2767
2768 **S. Wetlands Protection (24 CFR 50.4(b)(3)):**

- 2769
2770 1. Applications for mortgage insurance are subject to regulations regarding wetlands at 24
2771 CFR Part 55 which implement Executive Order (EO) 11990 “Protection of Wetlands”.
2772 EO 11990 prohibits the development or disturbance of wetlands unless there is no
2773 practicable alternative and the proposed action includes all practicable measures to
2774 minimize harm to the wetland. Proposals impacting wetlands must be reviewed by HUD
2775 under the 8 step process in Part 55 to determine consistency with requirements of EO
2776 11990.

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2. The process for identifying wetlands is set out in Part 55. The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. This definition includes both wetlands subject to and those not subject to section 404 of the Clean Water Act (i.e. jurisdictional and non-jurisdictional wetlands). Manmade retention/detention ponds are not considered wetlands unless they have the characteristics of a wetland as noted above.
 3. Lenders shall use the Fish and Wildlife Service's National Wetlands Inventory (NWI) as a primary screening tool and must also identify observed or known wetlands not indicated on NWI maps. HUD must consider onsite and off-site impacts that result in draining, impounding, or destroying wetlands.
 4. If an NWI map indicates the presence of wetlands, FWS staff, if available, must find that no wetland is present in order for the action to proceed without further processing. Where FWS staff is unavailable to resolve any NWI map ambiguity or controversy, an appropriate wetlands professional must find that no wetland is present in order for an action to proceed without further processing.
 5. Projects that develop or disturb onsite or offsite wetlands (also known as new construction in a wetland) will be considered only after HUD conducts an eight-step decision-making process as described in 24 CFR 55.20 and includes consultation, issuing two public notices and taking public comment. Developing or disturbing onsite or offsite wetlands includes draining, dredging, channelizing, filling, diking, impounding and related activities. See 24 CFR 55.2(b)(8) for the definition of new construction in a wetland.
 6. Wetlands under local or state jurisdiction are subject to state or local review as appropriate. However, compliance with state or local requirements is not a substitute for the 8-step process.
 7. Use of individual permits under section 404 of the Clean Water Act:
 - a. The project involves new construction in a wetland on a property located outside the 100-year floodplain and 500-year floodplain.
 - b. The applicant has submitted, with its application to HUD, an individual Section 404 permit (including approval conditions) issued by the U.S. Army Corps of Engineers, or by a State or Tribal government under Section 404(h) of the Clean Water Act for the proposed project, and
 - c. All wetlands adversely affected by the project are covered by the permit (see 24 CFR 55.28).

2822
2823 Note: Processing under all of §55.20 is required for new construction in wetlands
2824 that are not subject to section 404 of the Clean Water Act and for new construction
2825 for which the USACE (or a State or Tribal government under section 404(h) of the
2826 Clean Water Act) issues a general permit under Section 404.

2827
2828 The Lender must provide extensive data to aid HUD in evaluating wetland impacts.
2829 The Lender should consult early with HUD when a site could potentially impact a

2830 1.—
2831 8. wetland.

2832
2833 a. HUD may require that the Lender submit a wetlands delineation performed by a
2834 qualified professional to evaluate the direct and/or indirect wetland impacts of the
2835 project.

2836
2837 b. Appropriate and practicable compensatory mitigation is recommended for
2838 unavoidable adverse impacts to more than one acre of wetlands. Compensatory
2839 mitigation is defined at 24 CFR 55.2(b)(2) and includes but is not limited to:
2840 permittee-responsible mitigation, mitigation banking, in-lieu fee mitigation, the use of
2841 preservation easements or protective covenants, and any form of mitigation promoted
2842 by state or Federal agencies.

2843
2844 c. The 8-step process shall consider three alternatives: the action as proposed,
2845 modifications within the site controlled by the applicant, or no action, i.e., rejection of
2846 the application.

2847
2848 9. When wetlands exist at a project site, HUD will require assurance from the Borrower that
2849 no activities that may impact a wetland will be undertaken during the term of the insured
2850 mortgage without prior approval from HUD. This assurance is required when future
2851 activities at the project site could impact on-site, adjacent and/or other off-site wetlands.
2852 To ensure that any work during the term of the insured mortgage that could impact a
2853 wetland will undergo the applicable reviews and approvals before the work begins, the
2854 below statement is to appear in official project documents as determined by ORCF, such
2855 as a rider to the Borrower Regulatory Agreement or in accordance with current ORCF
2856 requirements. This restriction will end with the termination of the insured mortgage:

2857
2858 WETLANDS RESTRICTION. While any mortgage insured by HUD is in effect,
2859 Borrower shall not perform construction activities on the Mortgaged Property that
2860 impact any area that qualifies as a wetland by the U.S. Army Corps of Engineers
2861 1989 delineation procedures or the U.S. Fish and Wildlife Service "Classification
2862 of Wetlands and Deepwater Habitats of the United States" without first obtaining
2863 the consent of HUD and any applicable federal, state, or local permits. Please note
2864 that this definition includes wetlands that are not defined as jurisdictional under
2865 Section 404 of the Clean Water Act and is to be interpreted consistent with 24
2866 CFR Part 55.

2868 **T. Wild & Scenic Rivers:**

- 2869 1. The Wild and Scenic Rivers Act provides federal protection for certain free-flowing,
2870 wild, scenic, and recreational rivers designated as components or potential components of
2871 the National Wild and Scenic Rivers System (NWSRS).
- 2872 2. For new construction and rehabilitation, HUD must consider whether projects in
2873 proximity to a wild and scenic river could impact the designated river segment or be
2874 inconsistent with the management and land use plan for the designated river area.
- 2875 3. Additional information about the Wild and Scenic Rivers Act and compliance
2876 requirements can be found on the HUD Exchange website which can be accessed from
2877 the ORCF Environmental Resources page.
- 2878
- 2879

2880 **7.4**

Additional Nuisances and Hazards

2881 These requirements are applicable to all transaction types except those that are excluded from an
2882 environmental review (CENST), as discussed at Section 7.1.B.1 above.

- 2883 A. Fall Hazards
- 2884 B. Hydraulic Fracturing (Fracking) Activities
- 2885 C. Local Requirements
- 2886 D. Oil or Gas Wells, Sour Gas Wells, and Slush Pits
- 2887 E. Overhead High Voltage Electric Transmission Lines
- 2888 F. Pipeline Hazards
- 2889 G. Railroad Vibration
- 2890 H. Sinkhole/Mine Subsidence
- 2891 I. Soil Fill
- 2892 J. Water Quality
- 2893 K. Zoning

2894

2895

2896 **A. Fall Hazards:** HUD recognizes that certain free-standing structures may pose a hazard to
2897 properties and their occupants through structural failure or other causes. Fall hazards
2898 considered under this part include support structures for high voltage transmission lines, free-
2899 standing radio/TV/cell towers, free standing water towers, wind turbines, and other like free-
2900 standing structures. Exclusions from this definition include items affixed to the building
2901 (such as a radio/TV antenna, satellite dishes, cellphone towers, and similar features), unless
2902 specifically identified as a hazard during the review. Additional exclusions include local
2903 service electric lines and poles.

- 2904
- 2905 1. For all projects located within the vicinity of a fall hazard, the fall zone of the free-
2906 standing structure must be determined.
- 2907 a. For initial analysis, the fall distance may be equal to the height of the tower.
- 2908 b. If any of the property's buildings, ancillary facilities or common areas are located
2909 within the initial fall zone based on the height of the tower, the Lender must submit
2910 an engineering report to evaluate the engineered fall distance of the structure. The

2911 engineered fall distance must be calculated by a registered professional engineer.
2912 c. For monopoles with no seams, welds, connections or weak points where a sustained
2913 load could cause failure to the pole length, HUD will accept certifications by a
2914 licensed structural engineer that the monopole and base are in good condition and
2915 comply with all structural requirements in lieu of a specified fall distance.
2916

2917 2. No structures, ancillary facilities or common areas may be constructed or located within
2918 the fall zone.

2919 a. For existing healthcare facilities that do not increase residential density that are
2920 within the fall zone, the Lender may submit a report from a registered professional
2921 engineer that includes the condition of the tower, the tower specifications, the date of
2922 the last tower maintenance, pictures of the tower including the foundation, an
2923 assessment of the hazard to the HUD project, and a discussion of any mitigation
2924 measures that could minimize this risk. HUD staff will determine whether to grant
2925 an exception to the prohibition on being within the engineered fall distance.
2926

2927 3. If the fall zone does not include any buildings, ancillary facilities, structures, or common
2928 areas, document this in the environmental review in HEROS.
2929

2930 **B. Hydraulic Fracturing (Fracking) Activities:**

2931 1. No residential structure may be within 300 feet of the boundary of an existing or
2932 planned fracking well pad.
2933

2934 2. If fracking well pads are greater than 300 feet but within 1000 feet of a project,
2935 HUD requires a hazard analysis from a qualified party such as a geologist or a
2936 geotechnical engineer evidencing that lateral fracking would not negatively affect
2937 soil stability, cause petroleum releases, or create other risks to the HUD property
2938 and/or residents, etc. The analysis should include information about extraction
2939 wells and other fracking operations within 1000 feet of the project site and an
2940 assessment of risks from these operations. The report should include information
2941 regarding the status of each horizontal well and future plans for new drilling at or
2942 adjacent to the site.
2943

2944 a. ORCF requirements related to pressurized pipelines that are above 200 psi
2945 (see Section 7.4.F.1) apply to fracturing operations.
2946

2947 b. If issues are identified, HUD requires mitigation to address the issues and
2948 may reject the project if no mitigation is possible.
2949

2950 **C. Local Requirements:** HUD may adopt additional requirements to address unique local
2951 concerns in specific geographic areas, but if any local requirement is mandated, ORCF must
2952 inform the Housing Program Environmental Clearance Officer of the requirement.
2953

2954 **D. Oil or Gas Wells, Sour Gas Wells, and Slush Pits:**

2955 1. Operating or planned drilling site: No residential structures may be within 300 feet from
2956

2957 the boundary of the drilling site.

2958
2959 2. Operating well: No residential structures may be within 75 feet of an operating well
2960 unless the following mitigating measures are taken:

2961 a. Maintenance of nuisance controls.

2962 b. Controls of noise levels caused by pumping, and

2963 c. Spill controls to reduce risk of contamination.

2964
2965 3. Abandoned well:

2966 a. Confirmation by the State government that the well is safely and permanently
2967 abandoned. No residential structures may be located within 10 feet of an abandoned
2968 well.

2969 b. If there is no confirmation letter, no residential structures may be within 300 feet of
2970 an abandoned well.

2971
2972 4. Sour gas (hydrogen sulfide bi-product) wells: Separation distance must be determined by a
2973 petroleum engineer, with concurrence by State government.

2974
2975 5. Slush pits (used for drilling mud mixes for well lubrication):

2976 a. If located on-site, a hazards analysis is required to be performed pursuant to Section
2977 7.3.Q, Site Contamination. Mitigation activities must include, and are not limited to,
2978 removal of all drilling mud from the site and backfilling with clean compacted
2979 material.

2980 b. If offsite, an analysis must be performed pursuant to Section 7.3.Q regarding offsite
2981 hazards.

2982
2983 E. **Overhead High Voltage Electric Transmission Lines:** No structure shall be located within
2984 the easement of any overhead high voltage transmission line. A high voltage transmission
2985 line is a power line that carries high voltage between a generating plant and a substation.
2986 High voltage lines do not include local distribution and service lines.

2987
2988 F. **Pipeline Hazards:**

2989 1. All parts of any structure must be at least 10 feet from the outer boundary of the
2990 easement for any high pressure pipeline transferring flammable or combustible liquids
2991 or gases that exceed 200 psi operating pressure. This does not apply to distribution
2992 lines supplying only the facility itself.

2993
2994 2. In addition, reviews of new construction projects, rehabilitation projects where
2995 residential density will increase, projects where there is a conversion from non-
2996 residential to residential use, or projects where a vacant building is made habitable
2997 must consider the potential hazard of pressurized pipelines within a one (1) mile radius
2998 of the property.

2999
3000 a. The analysis must identify all buried and aboveground high pressure pipelines
3001 within a one (1) mile radius of the property. HUD's primary reference for the
3002 one-mile radius assessment is the National Pipeline Mapping System (NPMS)

3003 [Pipeline Information Management and Mapping Application \(PIMMA\).](#)
3004 [Preparers must evaluate all pipelines within the search area that are identified in](#)
3005 [the NPMS \(public viewer\) in the pipeline analysis. While other data sources](#)
3006 [may be helpful and are welcome, preparers are not required to analyze lines not](#)
3007 [identified in the NPMS, except as noted in Section 7.4.F.4 below for fracking](#)
3008 [operations. The NPMS mapping tool is available at](#)
3009 [https://www.npms.phmsa.dot.gov/default.aspx.](https://www.npms.phmsa.dot.gov/default.aspx)

3010
3011 [b. When the PIMMA tool identifies a high pressure pipeline within the one mile](#)
3012 [radius, an analysis is required to determine if the pipeline poses a safety hazard](#)
3013 [that requires mitigation. For assistance with this analysis, the reviewer should](#)
3014 [contact the HUD Field or Regional environmental officer for the location where](#)
3015 [the pipeline is being assessed. A link to the contact information for HUD](#)
3016 [Environmental Officers by Region/State is available on the ORCF](#)
3017 [Environmental Resources Page.](#)

3018
3019 [c. If a pipeline poses a safety hazard, HUD requires mitigation to address the](#)
3020 [issues and may reject the project if no mitigation is possible. Mitigation can](#)
3021 [include modifying the building design using heat retardant and high tensile](#)
3022 [strength materials; rearranging the site plan and exterior building shapes; or](#)
3023 [constructing a barrier designed by a licensed professional structural or civil](#)
3024 [engineer.](#)

3025
3026 [3. For projects near fracking sites, the requirement at 7.4.B.2 to analyze hazards from](#)
3027 [fracking operations within 1000 feet of the property includes pipelines that are above](#)
3028 [200 psi. Section 7.4.F.1 above applies to these pipelines. Such pipelines may not be](#)
3029 [shown on the NPMS map but may be identified through the agency that regulates the](#)
3030 [oil and gas industry in the jurisdiction \(in Texas, for example, The Railroad](#)
3031 [Commission of Texas may provide the applicable data\).](#)

3032 3033 **G. Railroad Vibration:**

3034 [Buildings closer than 100 feet to a railroad track are often subject to excessive vibration](#)
3035 [transmitted through the ground. New construction at such sites is discouraged. For](#)
3036 [existing properties, the structure must be examined for damage caused by vibrations. A](#)
3037 [railroad vibration study may be required and should be performed by a registered](#)
3038 [professional engineer with experience in structural vibration analysis.](#)

3039
3040 **Whenever 7.4**

HUD Responsibilities in Reviewing Cases Requiring Remediation

3041 [rail lines are less than 100 feet from a facility, HUD approval should be obtained prior to](#)
3042 [the application submission. In addition to concerns about vibration, HUD will want](#)
3043 [documentation that the project complies with applicable LSTF safety standards.](#)

3044 3045 **H. Sinkhole/Mine Subsidence:** Sinkhole/Mine Subsidence insurance is required for properties

3046 [in areas prone to these geological phenomena; see Production, Chapter 14.7.F.](#)

3047
3048 **I. Soil Fill:** [If any part of a site appears to be developed on filled ground, HUD may require](#)
3049 [that all grading be properly controlled to prevent differential earth movement, sliding,](#)
3050 [erosion, and/or other occurrences which might damage dwellings, streets or other](#)
3051 [improvements. Excessive slopes, soil compatibility, and potential for erosion are important](#)
3052 [site planning factors that impact the cost of development and the ultimate success of the](#)
3053 [project.](#)

3054
3055 **J. Water Quality:** [Documentation confirming that the facility’s potable water supply meets](#)
3056 [local, state, and federal safe drinking water standards must be included in the mortgage](#)
3057 [insurance application; or, in cases where the drinking water supply does not meet the](#)
3058 [applicable safety standards, the mortgage insurance application must identify corrective](#)
3059 [measures. The implementation of corrective measures must be completed and compliance](#)
3060 [with the applicable water quality standards must be confirmed prior to the loan closing.](#)

3061
3062 [1. Public Water Supply: The water service’s most recent Consumer Confidence Report](#)
3063 [\(CCR\) should be included in the application. The U.S. Environmental Protection](#)
3064 [Agency \(EPA\) requires every community water supplier to provide a CCR to its](#)
3065 [customers.](#)

3066
3067 [2. Private Water Supply/Private Well: When a private water supply is utilized for](#)
3068 [drinking water, the facility’s water supply must meet the requirements of the health](#)
3069 [authority with jurisdiction. If there are no local or state water quality standards, then the](#)
3070 [water quality must meet the EPA Primary Drinking Water Standards.](#)

3071
3072 **K. Zoning:** [If an existing property has a legal non-conforming use/structure, and the current](#)
3073 [zoning regulations will not allow the property to be rebuilt to the current density, then the](#)
3074 [owners are required to purchase Ordinance or Law insurance coverage with their property](#)
3075 [insurance; see Production, Chapter 14.5.B Ordinance or Law Coverage.](#)

3076 **7.5**

3077 **Environmental Assessment Factors**

3078
3079 [An Environmental Assessment \(EA\) level review requires compliance with NEPA in addition to](#)
3080 [the laws and authorities listed at Chapter 7.3 above and the additional Housing Specific](#)
3081 [requirements described in 7.3 and 7.4 above. When conducting an EA level of review, HUD will](#)
3082 [require and analyze information to determine if the project results in any significant impact and](#)
3083 [if an Environmental Impact Statement is needed.](#)

3084
3085 [The following are EA requirements that must be included in the HEROS submission¹:](#)

¹ [Additional details and examples of the EA requirements provided at](#)

- 3086
3087 **A. Purpose and Need:** HUD’s EA review requires a project justification that outlines the
3088 objectives of the environmental review. The purpose and need statement provides a
3089 framework for environmental decision-making.
3090
- 3091 **B. Existing Conditions and Trends:** HUD’s EA review must determine existing physical
3092 conditions of the project area and also describe the character, features and resources of the
3093 project area and its surrounding. This section should identify the trends that are likely to
3094 continue in the absence of the project.
3095
- 3096 **C. Effects Analysis:** HUD’s EA review must consider any changes to the human environment
3097 that are reasonably foreseeable and have a reasonably close causal relationship to the HUD
3098 project. Consistent with 40 CFR 1508.1(g), HUD’s EAs must discuss both effects that occur
3099 at the same time and place as the proposed project and any effects that are farther removed in
3100 time or distance from the project area (e.g. potential changes to the land use and development
3101 patterns of the surrounding community). This analysis must include the full aggregated
3102 project site.
3103
- 3104 **D. Alternatives:** Projects must always consider the No Action alternative. HUD staff are
3105 considering an application for FHA at a particular site and therefore are limited to
3106 considering three alternatives: the action as proposed, modifications within the site controlled
3107 by the applicant, or no action, i.e., rejection of the application.
3108
- 3109 **E. Environmental Assessment Factors:** The EA must analyze the project’s impacts on land
3110 development, socioeconomic factors, community facilities and services, natural features and
3111 climate and energy.² The analysis will vary from project to project. For example, a project
3112 designed to house families will focus on access to schools, parks and recreation while a
3113 project designed to house seniors would instead focus on healthcare and social services.
3114 Some EA factors are listed below. For a full list with suggested resources, see footnotes in
3115 this section.
- 3116 1. Conformance with comprehensive plans, zoning compatibility, site safety, energy
3117 consumption, and urban impact.
 - 3118 2. Availability of services like educational facilities, commercial facilities, health care
3119 and social services.
 - 3120 3. Availability of supporting infrastructure such as solid waste, wastewater, storm
3121 water, and access to municipal water supply, public safety (Police, Fire, and
3122 Emergency Medical Services), open space and recreation, cultural facilities, and
3123 transportation.

<https://www.hudexchange.info/programs/environmental-review/housing/#faq>. The HEROS Partner EA form also gives a good overview of EA requirements, which can be found at <https://files.hudexchange.info/resources/documents/Environmental-Assessment-Factors-and-Analysis-Partner-Worksheet.docx>.

² Guidance on considering EA factors can be found at <https://www.hudexchange.info/programs/environmental-review/environmental-assessment/> <https://files.hudexchange.info/resources/documents/Environmental-Assessment-Factors-Guidance.pdf>.

3124 [4. Climate risks and the likely impacts of climate change on the project’s short- and](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)
3125 [long-term suitability and resilience. Information on climate change analysis](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)
3126 [techniques, mitigation measures, and links to a number of useful resources are](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)
3127 [available in the Climate Change Impacts section of the Environmental Assessment](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)
3128 [eGuide at https://www.hudexchange.info/news/environmental-assessment-guide-](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)
3129 [and-resources/.](https://www.hudexchange.info/news/environmental-assessment-guide-and-resources/)

7.6

HUD and Lender Responsibilities in Cases Requiring Remediation

A. General Responsibilities

3132 The Department assumes greater risk anytime that a Firm Commitment is issued on a
3133 contaminated site. The risk is even greater when a loan is closed on a site where complete
3134 removal of contamination is not possible, requiring monitoring possibly with continuous
3135 remediation techniques such as Monitored Natural Attenuation and Enhanced Passive
3136 Remediation (MNA/EPR). Therefore, HUD staff must exercise great care in the review
3137 process to assure that all reasonable measures are taken to mitigate HUD’s exposure and that
3138 an accurate determination is made of any remediation costs that are included in the FHA-
3139 insured mortgage. Any special site assessment reports, Phase II or Phase III ESAs should be
3140 reviewed so that the extent of the contamination is fully understood. Although the Lender is
3141 responsible for assuring that environmental remediation contractors are qualified and
3142 experienced, HUD staff must still review references and qualifications, and are strongly
3143 encouraged to consult with an [Environmental Officer REO/FEO at the start of any](#)
3144 [remediation discussion.](#)

3145 ~~Complete 1. In cases requiring remediation, the lender must provide the plan and the cost~~
3146 ~~estimate from a qualified contractor who will perform the mitigation work.~~

A. 2. ~~Removal of Site Contamination Valuation~~

3147 The HUD staff preparing the environmental review in HEROS ~~—Form 4128~~ is generally
3148 responsible for reviewing ~~and documenting~~ the adequacy of the proposed remediation
3149 plan.

3150 ~~Any estimates of value or rents should be made as if the project is unaffected by~~
3151 ~~contamination and conditioned on successful removal. The appraisal must address~~
3152 ~~any effect on marketability that may be present due to the prior environmental~~
3153 ~~history.~~

3154 If an environmental issue involves areas of special engineering expertise, environmental
3155 science, or State and local ~~procedure~~[procedures](#), the HUD reviewer may request technical
3156 assistance from the ~~Field Environmental Officer (REO or FEO)~~ assigned in that
3157 jurisdiction, and defer to their guidance and judgment in the matter. HUD reviewers may

3167 also request the attention of ~~HUD Regional Environmental Officers (REO) or the~~
3168 Program Environmental Clearance ~~Officers~~Officer and/or Specialists when unusual or
3169 controversial issues arise.

3171 ~~Underwriting: The ORCF Underwriter is responsible for determining if~~3.

3172 Architecture/Engineering and Cost: Engineering staff or a Cost Analyst should review the
3173 cost estimate of the remediation plan to determine whether it is reasonable and if the
3174 remediation and removal contractor is appropriately bonded and qualified. ~~The ORCF~~
3175 ~~Underwriter may consult with HUD Architectural/Engineering and Cost staff, and with~~
3176 ~~local environmental remediation professionals about costs for similar work.~~ Cost data for
3177 remediation is not as plentiful as with more routine construction tasks. ~~“Environmental~~
3178 ~~Remediation Estimating Methods” might be helpful in some cases and is available~~
3179 ~~through RS Means (Please see ORCF Environmental Resource Page located on the~~
3180 ~~Section 232 Program website).~~ HUD staff may consult with local environmental
3181 remediation professionals about costs for similar work.

3182
3183 4. Underwriting: The ~~amount of escrow or bond~~ORCF Underwriter shall be based on the
3184 estimated cost ~~determine escrow, performance and bond payment requirements. The cost~~
3185 ~~of the mitigation work based upon the estimated cost from the contractor.~~ may be
3186 included in the insured loan.

3187
3188 The amount of escrow or bond should be for 150% of the total estimated cost, ~~or in an~~
3189 ~~escrow established for of~~ the same amount mitigation work. Higher escrow or bonding
3190 requirements will be necessary if HUD staff determines that there is a greater than
3191 average risk that unforeseen problems may arise, resulting in increased cost. This
3192 determination should be based on previous experience with similar work and/or research
3193 through local environmental remediation contractors about their experience in containing
3194 the cost within their stated estimate.

3195
3196 5. Account Executive: The Account Executive shall administer the escrow, performance,
3197 and bond payment requirements. The cash requirements for the escrow or bond, and the
3198 Lender and Account Executive’s procedures for administering the escrow, shall be in
3199 accordance with existing instructions in the Office of General Counsel’s Closing Guide.

3201 **B. Incomplete Removal of Site Contamination:**

3202
3203 1. All disciplines should follow the guidance in Section 7.4-B6.A above regarding initial
3204 remediation costs.

3205
3206 2. A HUD Staff Appraiser must assure that the annual operating expenses concluded by the
3207 Contract Appraiser and the Lender includes the cost of any requirement for continuous
3208 monitoring and/or ongoing mitigation. It may be categorized as a maintenance expense,
3209 and would include fees charged by service providers who are engaged to perform
3210 monitoring. If an expense is for actual or anticipated replacement of a component such as
3211 a pump, it should be added to the Reserves for Replacement. The basis for the expense or
3212 additional replacement reserve will be obtained from a qualified engineer and/or

3213 contractor. The engineer/contractor's estimate should be sufficiently detailed and
3214 supported to allow review by HUD staff.

3215
3216 Any effect on marketability, income or value related to the need for continuous
3217 monitoring/mitigation must be quantified and thoroughly discussed in the appraisal.

3218
3219 **C. Management, Coordination and Communication:**

3220
3221 The Department assumes greater risk in cases involving environmental mitigation that will
3222 occur after Initial Closing, especially when mortgage proceeds are used to fund the cost of
3223 remediation. Extra attention must be given to the need for frequent communication between
3224 technical disciplines, preferably with written documentation, relating to levels of
3225 contamination, cost estimates, and the certainty of the effectiveness of mitigation.

3226
3227 **D. Insurance/Guarantee Requirements:**

3228
3229 Borrowers are required to obtain separate insurance for environmental hazards from an
3230 insurer acceptable to HUD if remediation work will be done on the site during the insured
3231 loan period, if such coverage is available. The insurance typically covers liability and cost of
3232 completion.

3233
3234 The environmental remediation contractor will almost always be different from the project's
3235 general contractor. Aside from the contractor qualifications and bonding requirements
3236 addressed above, the remediation contractor must also provide HUD a separate guarantee of
3237 completion for their work.

3238
3239

3240 **7.5**

**Environmental Information for the Lender
Narrative**

3241 ~~In addition to the reports and submission requirements discussed above, ORCF requires the~~
3242 ~~Lender to provide a Lender Narrative with environmental issues discussed, along with any~~
3243 ~~available supporting documentation for the project in the application submission. Supporting~~
3244 ~~documentation may be included in the Phase I ESA report or it may be submitted separately~~
3245 ~~within the application to HUD.~~

3246
3247 ~~The following important environmental issues must be discussed in the Lender Narrative when~~
3248 ~~applicable:~~

- 3249
3250 ~~1. Coastal Zone Management (24 CFR 50.4(e)(2))~~
3251 ~~2. Coastal Barrier Resources (24 CFR 50.4(e)(1))~~
3252 ~~3. Floodplain Management (24 CFR 50.4(b)(2))~~
3253 ~~4. Historic Preservation (24 CFR 50.4(a))~~
3254 ~~5. Noise Analysis (24 CFR Part 50.4(k))~~
3255 ~~6. Explosive/Flammable Hazards (24 CFR 50.4(k))~~

- 3256 7. ~~Airport Clear Zones (24 CFR 50.4(k))~~
3257 8. ~~Wetlands Protection (24 CFR 50.4(b)(3))~~
3258 9. ~~Toxic Chemicals and Radioactive Materials (24 CFR 50.3(i))~~
3259 10. ~~Other Applicable Federal Laws~~
3260 a. ~~Endangered Species (24 CFR 50.4(e))~~
3261 b. ~~Sole Source Aquifers (24 CFR 50.4(d))~~
3262 c. ~~Farmlands Protection (24 CFR 50.4(j))~~
3263 d. ~~Flood Insurance (24 CFR 50.4(b)(1))~~
3264 e. ~~Environmental Justice (24 CFR 50.4(l))~~

3265 ~~Additional Hazards and Nuisances (radon, pipelines, vibrations, fall hazards, etc.)~~

3266

3267 ~~The existence of mold in a structure is not a topic that is covered during the environmental~~
3268 ~~review. It is addressed in the Project Capital Needs Assessment (PCNA) as part of the building~~
3269 ~~inspection. Lenders and ORCF underwriters will refer to the PCNA to determine if mold~~
3270 ~~assessment and remediation is required.~~

3271

3272 ~~The issues discussed below must be analyzed by HUD staff during their preparation of the~~
3273 ~~environmental review in HEROS Form HUD-4128 and provide guidance by which the Lender~~
3274 ~~can assist HUD. These brief descriptions are not substitutes for the requirements in the statutes,~~
3275 ~~regulations, Executive Orders, notices and handbooks.~~

3276

3277 ~~I. **Coastal Zone Management** (24 CFR 50.4(e)(2)): Projects located within a state's coastal~~
3278 ~~management zone must be found consistent with the approved state Coastal Zone~~
3279 ~~Management program. In many states, HUD will require a letter from the State Coastal Zone~~
3280 ~~Management Agency confirming consistency with the approved program. Lenders should be~~
3281 ~~aware of the extent of coastal management zones in coastal states and contact HUD early~~
3282 ~~when examining a proposal in a coastal zone.~~

3283

3284 ~~J. **Coastal Barriers** (24 CFR 50.4(e)(1)): Under the Coastal Barriers Resources Act cited in 24~~
3285 ~~CFR 50.4(e), HUD is prohibited from insuring a project located within designated coastal~~
3286 ~~barriers of the Atlantic Ocean, Gulf of Mexico, or the Great Lakes, known as Coastal Barrier~~
3287 ~~Resource System (CBRS) units, and shown on associated Fish and Wildlife Service maps. A~~
3288 ~~project located within a CBRS unit, or that includes a facility (such as a water main) to a~~
3289 ~~CBRS unit, will not be eligible for application processing.~~

3290

3291 ~~K. **Floodplain Management** (24 CFR 50.4(b)(2)):~~

3292

3293 ~~1. Applications for Firm Commitment for mortgage insurance are subject to~~
3294 ~~regulations regarding floodplain management found at 24 CFR Part 55 which~~
3295 ~~implements Executive Order 11988 (Floodplain Management).~~

3296

3297 ~~2. All Section 232 projects are considered "critical actions" as defined in 24 CFR~~
3298 ~~55.2(b)(3).~~

3299

3300 ~~3. The Lender must utilize the Federal Emergency Management Agency's best available~~

3301 data to comply with Floodplain Management requirements, which is the latest
3302 Advisory Base Flood Elevations (ABFEs), Preliminary Flood Insurance Rate Maps
3303 (P-FIRMs), or Flood Insurance Rate Maps (FIRMs). However, base flood elevations
3304 from an advisory or preliminary map may not be used if the elevations are lower than
3305 the elevations on the current FIRM used for ratemaking purposes. An online resource
3306 for finding the relevant FIRM and ABFE may be found on the ORCF Environmental
3307 Resource Page located on the Section 232 Program website. If any part of the site or
3308 integral offsite development is located within the 500-year floodplain (0.2% chance
3309 of annual flood) according to the best available data, the project must comply with
3310 HUD's floodplain management regulations. Note: the 500-year floodplain includes
3311 the 100-year floodplain (1% chance or greater chance of flood in any given year,
3312 known as the Special Flood Hazard area). The project will need to comply with
3313 current standards in 24 CFR part 55 if they are more restrictive than this handbook.
3314 Visit the ORCF Environmental Resource Page for the latest guidance.
3315

3316 ~~4. Mortgage insurance shall not be approved for a property located in (a) a floodway, (b)~~
3317 ~~a coastal high hazard area, or (c) a FEMA identified Special Flood Hazard Area~~
3318 ~~(SFHA) in which the community has been suspended from or does not participate in~~
3319 ~~the National Flood Insurance Program. The terms "coastal high hazard area",~~
3320 ~~"floodway", and "functionally dependent use" are defined in 24 CFR 55.2.~~

3321
3322 ~~a. Exceptions: 24 CFR 55.12 lists categories of proposed actions to which the~~
3323 ~~floodplain management requirements in 24 CFR 55 are not applicable. As such,~~
3324 ~~the floodway and coastal high hazard area prohibitions do not apply to Section~~
3325 ~~232 projects if only an incidental portion of the project site is in the 100-year or~~
3326 ~~500-year floodplain, and the following conditions are met:~~

3327 ~~All construction (including existing improvements) or landscaping activities~~
3328 ~~(except for minor grubbing, clearing of debris, pruning, sodding, seeding, etc.)~~
3329 ~~must not occupy or modify the relevant floodplain. Due to the constraint that~~
3330 ~~activities must "not occupy or modify" the floodplain, the 100-year or 500-year~~
3331 ~~floodplain cannot be utilized in the development or support of any project~~
3332 ~~activity, except as passive open or green space. Open space is a portion of a~~
3333 ~~development site that is permanently set aside for public or private use and will~~
3334 ~~not be developed. Green space is considered to be undeveloped land or land~~
3335 ~~restored to its natural state.~~

3336 ~~i. Appropriate provision is made for site drainage; and~~

3337
3338 ~~a. In accordance with 24 CFR 55.12(e)(7)(iii), a protective covenant or~~
3339 ~~comparable restriction must be placed on the property's continued use to~~
3340 ~~preserve the 100-year or 500-year floodplain. The covenant or comparable~~
3341 ~~restriction must run with the land to provide for permanent preservation of the~~
3342 ~~floodplain, and must not be dependent on the mortgage instrument.~~

3343
3344 ~~5. If a stream coursing through a proposed site is designated as being in the~~
3345 ~~100-year floodplain according to FEMA's best available data, but there is no~~
3346 ~~designated floodway area (a so-called "regulatory floodway"), development~~

3347 ~~will be prohibited in the channel of the stream.~~

3348
3349 6. ~~HUD strongly discourages new construction projects in mapped 100-year~~
3350 ~~floodplains. This flood buffer zone is extended to the 500-year floodplain for~~
3351 ~~Section 232 projects. Section 232 project sites for new construction, and for~~
3352 ~~rehabilitation activities not meeting the criteria at 24 CFR 55.12(a)(3), which~~
3353 ~~are in the 100-year or 500-year floodplain according to the FEMA Flood~~
3354 ~~Insurance Rate Map, Advisory Base Flood Elevation Map, Preliminary FIRM,~~
3355 ~~or any of their official FEMA digitized equivalents, will not be considered for~~
3356 ~~mortgage insurance unless one of the following steps is taken:~~

3357 a. ~~A Conditional Letter of Map Amendment (CLOMA) or Conditional~~
3358 ~~Letter of Map Revision (CLOMR) removing the entire site from the~~
3359 ~~floodplain (100-year and 500-year) has been obtained from FEMA~~
3360 ~~prior to the initial submission or, in the absence of an initial~~
3361 ~~submission, prior to submission of the application for Firm~~
3362 ~~Commitment. In cases where the applicant has a CLOMA or CLOMR,~~
3363 ~~HUD approval for a Firm Commitment will be conditioned on the~~
3364 ~~Borrower: (1) meeting the requirements of the CLOMA or CLOMR;~~
3365 ~~(2) obtaining a Final Letter of Map Amendment (FLOMA) or Final~~
3366 ~~Letter of MAP Revision (FLOMR) removing the entire site from the~~
3367 ~~applicable floodplain prior to final endorsement; and (3) maintaining~~
3368 ~~flood insurance on any building in the 100-year floodplain during the~~
3369 ~~construction period until the FLOMA or FLOMR is issued; or~~

3370 b. ~~If Section 7.5.C.6.a does not apply, HUD must determine if there may~~
3371 ~~be extraordinary circumstances leading to the conclusion that there are~~
3372 ~~no practicable alternatives to the project site being in the floodplain. In~~
3373 ~~order to make this determination, HUD must conduct an 8-step~~
3374 ~~decision-making process that includes publishing two public notices~~
3375 ~~and taking comments, as summarized in 24 CFR 55.20. In such~~
3376 ~~instances, prior to issuing the first public notice, HUD will need~~
3377 ~~detailed information regarding how the property will be altered and the~~
3378 ~~improvements designed. This information includes the elevation of the~~
3379 ~~property, the elevation of the floodplain, and the location of life support~~
3380 ~~systems.~~

3381
3382 ~~Except in circumstances where it would not be practicable, in order to~~
3383 ~~minimize adverse impacts, the 8-step process shall require as a~~
3384 ~~condition of any project approval that a CLOMA or CLOMR be issued~~
3385 ~~prior to initial closing, and a FLOMA or FLOMR be issued prior to~~
3386 ~~final closing.~~

3387
3388 ~~The 8-step process shall require that new construction in a floodplain be~~
3389 ~~elevated to the 100-year floodplain according to FEMA's best available~~
3390 ~~data. If higher elevations are required by locally adopted code or~~
3391 ~~standards, those higher standards would apply. The 8-step process shall~~
3392 ~~also require that any new construction in Coastal A zones must utilize~~

3393 Zone VE construction practices in accordance with the FEMA Coastal
3394 Construction Manual, as recommended by FEMA. Information on
3395 those construction practices can be found on the ORCF Environmental
3396 Resource Page.

3397
3398 ~~The 8-step process shall be completed before issuance of the Firm~~
3399 ~~Commitment. HUD must develop the two notices but the costs of~~
3400 ~~publication will be borne by the Borrower. HUD approval for a Firm~~
3401 ~~Commitment will be conditioned on the Borrower maintaining flood~~
3402 ~~insurance on any building located in the 100-year floodplain until the~~
3403 ~~issuance of the FLOMA or FLOMR.~~

3404
3405 7. ~~As required by 24 CFR 55.20(e), all critical actions in the 100-year or 500-year~~
3406 ~~floodplain shall be designed and built at or above the 100-year floodplain (in~~
3407 ~~the case of new construction) according to FEMA's best available data or as~~
3408 ~~otherwise required by current standards in 24 CFR part 55, and modified to~~
3409 ~~include:~~

- 3410 a. ~~Preparation of and participation in an early warning system;~~
- 3411 b. ~~An emergency evacuation and relocation plan;~~
- 3412 c. ~~Identification of evacuation route(s) out of the 500-year floodplain; and~~
- 3413 d. ~~Identification marks of past or estimated flood levels on all structures.~~

3414
3415 ~~e. a. Projects that are converting from a non-residential use to a residential use~~
3416 ~~are considered the same as "new construction" for floodplain management~~
3417 ~~purposes.~~

3418
3419 8. ~~For Section 223(f) purchase or refinancing actions described in 24 CFR 55.12(a)(2),~~
3420 ~~or repair, rehabilitation, modernization, weatherization or improvement actions~~
3421 ~~described in 24 CFR 55.12(a)(3), an abbreviated decision-making process pursuant to~~
3422 ~~24 CFR 55.12(a) may be used by HUD to determine their acceptability. The~~
3423 ~~Department will evaluate risks and mitigation measures in making its decision but it~~
3424 ~~discourages these actions if either the lowest floor, or the life support facilities, or~~
3425 ~~egress and ingress of the existing building, are below the 100-year floodplain line.~~

3426
3427 9. ~~Where a site does not appear to be located in the floodplain on official FEMA~~
3428 ~~maps, but shows evidence of flooding, HUD is not precluded from~~
3429 ~~qualitatively evaluating the acceptability of the site. Lenders will be required~~
3430 ~~to provide extensive data to aid HUD in evaluating floodplain sites.~~

3431
3432 10. ~~At the time of the application for Firm Commitment, the Lender must submit a~~
3433 ~~completed Standard Flood Hazard Determination Form (FEMA Form 086-0-~~
3434 ~~32).~~

3435
3436 11. ~~Any building accepted for mortgage insurance that is located within a FEMA~~
3437 ~~mapped 100-year floodplain is required to carry flood insurance. General~~
3438 ~~flood insurance requirements as well as required insurance coverage amounts~~

3439 are set forth in Production, Chapter 14.7.H. When the facility's contents such
3440 as major movables are part of the mortgage security, the maximum available
3441 coverage amount consists of the total available for both the building and
3442 contents. Whenever flood insurance is required for a project, proof that the
3443 Borrower has a commitment for flood insurance effective as of the loan closing
3444 must be submitted with the mortgage insurance application.
3445

3446 ~~2.1. All new and renewal leases must contain acknowledgements signed by the residents~~
3447 ~~indicating that they have been advised that the property is in a floodplain and flood~~
3448 ~~insurance is available for their personal property. This applies to all Section 232 properties~~
3449 ~~within the 100-year and 500-year floodplains.~~

3451 ~~12. Section 232/223(a)(7) and FHA-insured Section 232/223(f) refinances:~~
3452 ~~Pursuant to 24 CFR 50.19(b)(21), refinances of currently FHA-insured~~
3453 ~~mortgages are exempt from the 8-step decision making process when the~~
3454 ~~refinance will not result in any physical impacts or changes except for routine~~
3455 ~~maintenance. Guidance for clarifying the difference between routine~~
3456 ~~maintenance and repair is available on the on the ORCF Environmental~~
3457 ~~Resource Page. All other requirements discussed in this section are being~~
3458 ~~extended by HUD to such §50.19 Categorical Exclusions. In particular, the~~
3459 ~~following are required for all Section 232 applications when the project is~~
3460 ~~located in a 100-year or 500-year floodplain:~~

3461 ~~a. Preparation of and participation in an early warning system;~~

3462 ~~b.a. An emergency evacuation and relocation plan;~~

3463 ~~a. Identification of evacuation route(s) out of the 500-year floodplain; and~~

3464 ~~b. Identification marks of past or estimated flood levels on all structures.~~

3465
3466 ~~13. In considering the safety of residents, offsite floodways and other flood hazards will~~
3467 ~~be evaluated in terms of separation distance, elevation differences, and the nature of~~
3468 ~~the hazard in question. Unacceptable proximity to hazards may result in rejection of~~
3469 ~~the application. Pre-submission guidance can be requested through~~
3470 ~~LEANThinking@hud.gov.~~

3471
3472 ~~L. **Flood Insurance:** In accordance with 24 CFR 50.4(b)(1), and as described in Section 7.5.C.12~~
3473 ~~above, flood insurance is required when any portion of a structure is located in a 100-year~~
3474 ~~floodplain.~~

3475
3476 ~~M. **Historic Preservation** (24 CFR 50.4(a)):~~

3477
3478 ~~HUD must follow the procedures implementing the National Historic Preservation Act (54~~
3479 ~~U.S.C. § 300101 et seq.) with regulations found at 36 CFR Part 800. Section 106 of the National~~
3480 ~~Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of~~
3481 ~~their undertakings on historic properties and to afford the Advisory Council on Historic~~
3482 ~~Preservation a reasonable opportunity to comment. All applications for Firm Commitment for~~
3483 ~~HUD mortgage insurance, whether new construction, rehabilitation, refinancing or conversion~~

3484 from non-residential to residential property, except those categorically excluded under 24 CFR
3485 50.19(b) (21), are considered “federal undertakings” that require HUD to make a determination
3486 of no historic properties affected, no adverse effect, or adverse effect upon historic properties. A
3487 historic property means any prehistoric or historic district, site, building, structure, object, or
3488 traditional cultural property or landscape included in, or eligible for inclusion in, the National
3489 Register of Historic Places maintained by the Secretary of the Interior.

3490
3491 ~~a. Defining the Area of Potential Effects (APE): HUD must consider the Area of~~
3492 ~~Potential Effects (APE). Establishing a project’s APE is part of a ‘reasonable and~~
3493 ~~good faith effort’ to identify historic properties that may be affected by the project.~~
3494 ~~The APE defines where to look for historic properties, based on where direct and~~
3495 ~~indirect impacts of the project are anticipated. Sometimes the APE is simply the~~
3496 ~~project parcel, and other times, it is a larger area, neighborhood, or historic district.~~
3497 ~~The APE should be based on project activities, without regard to whether there~~
3498 ~~actually are historic properties in the area. Identification of historic properties in the~~
3499 ~~APE comes later. Establishing the APE requires consideration of the effects a project~~
3500 ~~might have on and beyond its site. The effects of an interior rehabilitation project~~
3501 ~~will likely be limited to the building footprint itself. The APE for a simple exterior~~
3502 ~~rehabilitation would likely be the property parcel, including the building and its~~
3503 ~~immediate setting. Substantial earthmoving on a site may indicate the need for a~~
3504 ~~vertical dimension to the APE. Direct effects may also occur outside a project site. A~~
3505 ~~new construction project might have new roads and utility lines leading to the site and~~
3506 ~~they might be included within the APE. In major infrastructure projects that require~~
3507 ~~large amounts of fill, the source of the fill (“borrow area”) may be included in the~~
3508 ~~APE. Determination of the APE also needs to take into account possible indirect~~
3509 ~~effects that might negatively alter the character or use of adjacent properties. For~~
3510 ~~example, the review should consider whether the project will significantly increase~~
3511 ~~traffic or change traffic patterns in the vicinity of the project, whether the project will~~
3512 ~~introduce excessive light or noise in the area, and whether the project will have visual~~
3513 ~~ramifications on the surrounding area through its relatively massive scale or height.~~
3514 ~~If potential effects extend beyond the project site, the Section 106 documentation~~
3515 ~~should delineate the larger APE on a map.~~

3516
3517 ~~1. After the APE is defined, and historic properties within it are identified, the potential~~
3518 ~~impacts to those historic properties may be evaluated. Because of the technical nature~~
3519 ~~of historic property identification, evaluation and treatment, it may be appropriate to~~
3520 ~~retain a qualified historic preservation professional to prepare the findings. Such~~
3521 ~~consultant should meet the Secretary of the Interior’s Professional Qualifications (36~~
3522 ~~CFR Part 61) and have experience in Section 106 reviews.~~

3523
3524 ~~2. The Section 106 review must be completed before HUD approves and/or commits~~
3525 ~~funds to a project.~~

3526
3527 ~~3. All Section 232 new construction and substantial rehabilitation projects, and all non-~~
3528 ~~excepted Section 232/223(f), 223(a)(7) and 241(a) applications require consultation~~
3529 ~~with the State Historic Preservation Officer (SHPO) and with any applicable Tribal~~

3530 Historic Preservation Officer (THPO) and affected tribes.

3531 ~~Exceptions:~~

- 3532
- 3533 i. ~~Projects that~~ will not involve new construction or rehabilitation, nor result in
3534 any physical impacts or changes except for routine maintenance, have “no
3535 potential to cause effects” to historic properties, as described in 36 CFR
3536 800.3(a)(1), and therefore HUD has no further obligations under Section 106
3537 of the NHPA or 36 CFR Part 800. For such transactions there is no obligation
3538 to contact the SHPO or THPO/affected tribes, and HUD staff’s historic
3539 preservation responsibilities are limited to documenting this determination in
3540 HEROS Form HUD 4128). Guidance for clarifying the difference between
3541 routine maintenance (Please reference HUD Notice CPD 16-02 “Guidance for
3542 Categorizing an Activity as Maintenance for Compliance with HUD
3543 Environmental Regulations, 24 CFR Parts 50 and 58” or succeeding guidance.
3544 Note that this definition of maintenance is specifically for environmental
3545 review purposes and applies to all HUD programs.) and a repair is available
3546 on the ORCF Environmental Resource Page.
- 3547 ii. ~~Some states may have a Programmatic Agreement (PA) with HUD and the~~
3548 ~~proposal may be part of a class of actions that do not require Section 106~~
3549 ~~consultation under the MOA or PA.~~

3550

3551 4. ~~To assist HUD in making its historic preservation determination, the Borrower or~~
3552 ~~Lender may submit a letter to the appropriate State Historic Preservation Officer~~
3553 ~~(SHPO). Doing so may greatly expedite the Section 106 consultation process. The~~
3554 ~~letter must consist of a narrative explaining the proposal, and should follow the~~
3555 ~~procedures outlined by the individual state. The letter also should include a map~~
3556 ~~identifying the site location, the APE, and an opinion as to whether the proposal~~
3557 ~~would have any effect on historic properties. The letter to the SHPO, and the SHPO~~
3558 ~~response, if any, must be included in the application submission. Lenders may obtain~~
3559 ~~from HUD a sample letter as well as the name and address of the SHPO who has the~~
3560 ~~right to comment on the proposal. If a response from the SHPO is not received~~
3561 ~~within 30 days, the lender must alert HUD of this fact in their application. Some~~
3562 ~~SHPOS will only respond to federal agencies. Note: HUD, not the Lender, is~~
3563 ~~responsible for contacting the THPO and any affected tribes. The information~~
3564 ~~contained in the letter that was submitted to the SHPO as described above will assist~~
3565 ~~HUD in carrying out its tribal and THPO consultations.~~

3566

3567 5. ~~The request from the Borrower or Lender to the SHPO should be made as early as~~
3568 ~~possible in the application process. The response from the SHPO need not be~~
3569 ~~received by HUD prior to the application submission, but must be received by HUD~~
3570 ~~before a Firm Commitment is issued. Additional guidance on historic consultation is~~
3571 ~~available on the ORCF Environmental Resource Page.~~

3572

3573 The SHPO/THPO is allowed 30 days from the receipt of sufficient information to reply to
3574 requests for consultation. If there is no reply within that time, and if there is no reason to
3575 anticipate an objection to the proposal, HUD may make a determination of no effect, and

3576 a Firm Commitment may be issued. Where an undertaking (such as HUD mortgage
3577 insurance) affects a historic property or historic district, the result of the consultation may
3578 be design change, research and preservation, salvage, or in rare cases, rejection of the
3579 application for Firm Commitment. Consultation for these procedures may take
3580 considerable time before a Firm Commitment can be issued. Note that a review of
3581 published historic listings does not provide a conclusive determination of a property's
3582 historic significance. The Section 106 review gives equal consideration to properties that
3583 have already been included on the National Register as well as those that have not been
3584 so included, but that meet the National Register criteria.

3585 ~~A project whose historic significance is not initially apparent may still affect a~~
3586 ~~historic property. While age and integrity are considerations for historic listing~~
3587 ~~eligibility, additional criteria include significance in American history,~~
3588 ~~architecture, archeology, engineering, and culture, which can apply to more~~
3589 ~~modern properties. Therefore, SHPO consultation is required for all transactions~~
3590 ~~other than the exceptions listed at Section 7.5.D.3.a above.~~

3591 2.1. Tribal Consultation:

3592 ~~a. When Section 106 consultation is required, consultation with federally recognized~~
3593 ~~Indian tribes and Native Hawaiian Organizations may be required as part of the~~
3594 ~~Section 106 process. Not all projects that require Section 106 review require~~
3595 ~~consultation with Indian tribes. Consultation with federally recognized tribes is only~~
3596 ~~required when a project includes activities that have the potential to affect historic~~
3597 ~~properties of religious and cultural significance to tribes. These types of activities~~
3598 ~~include:~~

- 3599 ~~• ground disturbance (digging),~~
- 3600 ~~• new construction in undeveloped natural areas,~~
- 3601 ~~• introduction of incongruent visual, audible, or atmospheric changes,~~
- 3602 ~~• work on a building or structure with significant tribal association, or~~
- 3603 ~~• transfer, lease or sale of historic properties of religious and cultural significance.~~

3604 ~~Further guidance may be found in HUD's Notice on Tribal Consultation can~~
3605 ~~be found on the ORCF Environmental Resource Page.~~

3606 ~~When tribal consultation is required, the HUD reviewer will utilize the HUD Tribal~~
3607 ~~Directory Assessment Tool (TDAT) (see the ORCF Environmental Resource Page)~~
3608 ~~during the environmental review process to determine if the site is located in an area of~~
3609 ~~tribal significance. The tribal consultation requirement applies to properties off tribal~~
3610 ~~lands as well as on tribal lands. Properties with religious and cultural significance to~~
3611 ~~native people may include ancestral archaeological sites and natural areas where~~
3612 ~~traditional practices or ceremonies have been carried out as well as more familiar historic~~
3613 ~~properties. Some traditionally used places have very strong religious associations, and it~~
3614 ~~may be difficult or even inappropriate for native people to talk about their significance.~~
3615 ~~If this situation arises, hiring a qualified professional with experience in tribal~~
3616 ~~consultation may be required. The cost of such an interpreter shall be paid by the~~

3621 Borrower:

3622 Pursuant to the “anticipatory demolition” requirements of Section 110(k) of the National
3623 Historic Preservation Act (54 U.S.C. 306113), even before the concept meeting or
3624 application submission takes place, any action by a potential lender or borrower, or any
3625 action by another party that the lender or borrower has the legal power to prevent, that is
3626 taken with the intent to circumvent Section 106 review and that significantly adversely
3627 affects a historic property, could result in rejection of an application.

- 3628 b. ~~The Section 106 review must be completed before HUD approves and/or~~
3629 ~~commits funds to a project. Additional guidance on historic consultation is~~
3630 ~~available on the ORCF Environmental Resource Page.~~

3631
3632
3633 N. ~~Noise (24 CFR 50.4(k)):~~
3634

3635 ~~New Construction/Conversion Projects: HUD standards regarding the acceptability of noise~~
3636 ~~impacts on residential property are found at 24 CFR Part 51, Subpart B., which standards~~
3637 ~~must be met for new construction and conversion from nonresidential to residential projects.~~
3638 ~~Where a project is within the criteria on distance from noise generators, a noise analysis~~
3639 ~~utilizing the methodology in the most current version of HUD’s Noise Guidebook will be~~
3640 ~~performed as part of HUD’s environmental assessment. HUD’s automated Day/Night Noise~~
3641 ~~Level electronic assessment tool is available on the ORCF Environmental Resource Page.~~

- 3642 a. ~~Standards: The degree of acceptability of the noise environment at a site is~~
3643 ~~determined by the sound levels external to buildings or other facilities~~
3644 ~~containing noise sensitive uses. The standards shall usually apply at a location~~
3645 ~~2 meters (6.5 feet) from the building housing noise sensitive activities, in the~~
3646 ~~direction of the predominant noise source. Where the building location is~~
3647 ~~undetermined, the standards shall apply 2 meters (6.5 feet) from the building~~
3648 ~~setback line nearest to the predominant noise source. The standards shall also~~
3649 ~~apply at other locations where it is determined that quiet outdoor space is~~
3650 ~~required in an area ancillary to the principal use on the site.~~

- 3651 i. ~~Sites with a day night average exterior noise level of 65 DNL (Day Night~~
3652 ~~Level) and below are acceptable.~~

- 3653 ii. ~~HUD assistance for the construction of new noise sensitive uses is~~
3654 ~~discouraged for projects with normally unacceptable noise~~
3655 ~~exposure (above 65 DNL but not exceeding 75 DNL) and is~~
3656 ~~prohibited generally for projects with unacceptable noise~~
3657 ~~exposures above 75 DNL.~~

- 3658 iii.i. ~~New construction or conversions of existing structures to residential housing in~~
3659 ~~the Unacceptable Noise Zone, where outdoor noise levels are above 75 dB, are~~
3660 ~~generally prohibited. If the Regional Office wants to consider such a proposal,~~
3661 ~~it must:~~

- 3662 1. ~~Prepare an Environmental Impact Statement (EIS). If~~
3663 ~~ORCF believes that the proposal is acceptable based on~~
3664 ~~the EIS, it must then obtain project approval, including~~
3665 ~~approval of noise mitigation measures, from the~~
3666 ~~Assistant Secretary for Community Planning and~~

3667 ~~Development but must also obtain project approval,~~
3668 ~~including approval of noise mitigation measures, from~~
3669 ~~the Assistant Secretary.~~

3670 2. ~~If ORCF determines that noise is the only~~
3671 ~~environmental issue and no outdoor noise sensitive~~
3672 ~~activity that is not mitigated to below HUD's 65-~~
3673 ~~decibel standard will take place on the site, it may~~
3674 ~~request a waiver of the EIS Requirement by the~~
3675 ~~Assistant Secretary for Community Planning and~~
3676 ~~Development but must also obtain project approval,~~
3677 ~~including approval of noise mitigation measures, from~~
3678 ~~the Assistant Secretary.~~

3679 ~~b.a. Projections of Noise Exposure: In addition to assessing existing exposure,~~
3680 ~~future conditions should be projected. To the extent possible, noise exposure~~
3681 ~~shall be projected to be representative of conditions that are expected to exist~~
3682 ~~at a time at least 10 years beyond the project application date.~~

3683 ~~c.a. HUD should be consulted prior to designing mitigation measures.~~

3684
3685 ~~1. Existing and Rehabilitation Projects: For rehabilitation and refinancing, noise~~
3686 ~~exposure will be considered as a marketability factor. For rehabilitation projects,~~
3687 ~~HUD will encourage appropriate noise attenuation measures for inclusion in the~~
3688 ~~alterations.~~

3689
3690 ~~A. Railroad Vibration, Noise, and Location:~~

3691 ~~1. Buildings closer than 100 feet to a railroad track are often subject to excessive~~
3692 ~~vibration transmitted through the ground. New construction at such sites is~~
3693 ~~discouraged. For existing properties, the structure should be examined for damage~~
3694 ~~caused by vibrations. A railroad vibration study may be required.~~

3695 ~~a. For new construction applications, a noise study for the railroad should be~~
3696 ~~projected out 10 years to cover increased usage of the railway tracks.~~

3697 ~~b.a. A rail line may not bisect a property, nor should a rail line's right-of-way~~
3698 ~~generally encroach upon the site. Whenever rail lines are less than 100 feet from~~
3699 ~~a facility, approval should be obtained prior to the application submission.~~

3700 ~~c. Railyards (areas of multiple track sections used for assembling and~~
3701 ~~disassembling trains) have been determined to create loud, impulsive~~
3702 ~~sounds. Projects adjacent or with a direct line-of-sight to railyards must~~
3703 ~~add 8 decibels to the noise exposure.~~

3704
3705 ~~A. Explosive/Flammable Hazards (24 CFR 50.4(k)): HUD will not insure a property where~~
3706 ~~structures and residents will be exposed to unacceptable risks posed by proximity to~~
3707 ~~explosive or flammable hazards.~~

3708
3709 ~~1. For new construction projects, rehabilitation projects where residential density is~~
3710 ~~increased, projects where there is a conversion from non-residential to residential use,~~
3711 ~~or projects where a vacant building is made habitable.~~

3713 ~~Aboveground storage facilities with explosive or flammable material contents~~
3714 ~~must comply with the Acceptable Separation Distance (ASD) standards at 24~~
3715 ~~CFR Part 51 Subpart C. Analysis of sites near or in the vicinity of these types~~
3716 ~~of facilities must be performed by HUD as part of the NEPA environmental~~
3717 ~~assessment in accordance with the HUD guidebook: “Siting of HUD-Assisted~~
3718 ~~Projects Near Hazardous Facilities (Form HUD-1060-CPD)”.~~

3719 ~~i. If a plan is agreed upon with HUD before the issuance of a Firm Commitment,~~
3720 ~~these hazards may be mitigated during the construction period, if the work can be~~
3721 ~~done on the subject property. In cases where off-site mitigation is required, the~~
3722 ~~remediation must be completed prior to initial closing.~~

3723
3724 ~~2. A useful tool for calculating ASDs can be found on the ORCF Environmental~~
3725 ~~Resource Page.~~

3726
3727 ~~3. If a barrier will be constructed as hazard mitigation, HUD's Barrier Design Guidance~~
3728 ~~(Guidebook 6600.G) for flammable/explosive hazards mitigation is available on the~~
3729 ~~ORCF Environmental Resource Page.~~

3730
3731 ~~As stated in the guidebook, only a licensed professional engineer (civil or structural)~~
3732 ~~should design and oversee the construction of mitigation barriers.~~

3733
3734 ~~For existing projects to be refinanced or purchased that do not involve an increase in~~
3735 ~~residential density, HUD will substantively evaluate the risks associated with proximity~~
3736 ~~to hazardous facilities. HUD reviews of existing projects will consider the potential~~
3737 ~~danger presented by existing and proposed liquid fuel and gas storage tanks, and may~~
3738 ~~require mitigation.~~

3739 ~~a. Whenever aboveground tanks (ASTs) exist on site, whether containing liquid~~
3740 ~~fuel (over 100 gallons in size), or containing pressurized gas (stationary tanks~~
3741 ~~of any size), a conformance letter from the governing Fire Department/District~~
3742 ~~is required. The letter must specifically address the safety of the AST(s).~~

3743 ~~b. In cases where safety letters cannot be obtained for existing ASTs, where new~~
3744 ~~ASTs are being added, or where off-site tanks are in close proximity to the~~
3745 ~~existing subject building, an acceptable separation distance (ASD) calculation~~
3746 ~~must be included in the application, and mitigation may be required.~~

3747
3748 ~~B.A. Runway Clear Zone, Runway Protection Zones, Clear Zone, or Accident Potential Zone~~
3749 ~~(24 CFR 50.4(k)):~~

3750
3751 ~~4. HUD standards regarding the acceptability of property located in Runway Clear~~
3752 ~~Zones (also known as Runway Protection Zones), Clear Zones, and Accident~~
3753 ~~Potential Zones are found at 24 CFR Part 51 Subpart D. An Accident Potential Zone~~
3754 ~~is an area at a military airfield that is beyond the Clear Zone.~~

3755
3756
3757 ~~1. Construction or major rehabilitation of any property located within a Clear Zone is~~
3758 ~~prohibited. Acquisition, refinance, and minor rehabilitation which do not extend the~~

3759 ~~physical or economic life of projects within Clear Zones are allowed. HUD must~~
3760 ~~determine that projects located in Accident Potential Zones are generally consistent with~~
3761 ~~Department of Defense land use compatibility guidelines for Accident Potential Zones.~~
3762

3763 ~~2.1. In acquisition transactions, HUD, as part of its environmental review for an existing~~
3764 ~~property, shall advise the Lender, who will inform the Borrower purchasing the~~
3765 ~~property, that the property is in a Runway Protection Zone or Clear Zone.~~
3766 ~~Furthermore, it shall be explained that the implications of such a location are an~~
3767 ~~increased likelihood of airplane crashes on the property and the possibility that the~~
3768 ~~airport operator will acquire the parcel. The buyer must sign a statement~~
3769 ~~acknowledging receipt of this information. HUD may reject applications for~~
3770 ~~mortgage insurance on an existing property within a Runway Protection Zone or~~
3771 ~~Clear Zone because of the possibility that the property may be acquired at a later~~
3772 ~~date by the airport operator.~~
3773

3774 **O. ~~Wetlands Protection~~ (24 CFR 50.4(b)(3)):**
3775

3776 ~~1. Applications for mortgage insurance for new construction as defined in Executive Order~~
3777 ~~11990 (Protection of Wetlands) are subject to regulations regarding wetlands in 24 CFR~~
3778 ~~Part 55 that implement EO 11990. EO 11990 prohibits the development or disturbance of~~
3779 ~~wetlands unless there is no practicable alternative and the proposed action includes all~~
3780 ~~practicable measures to minimize harm to the wetland. Proposals impacting wetlands~~
3781 ~~must be reviewed by HUD under the 8 step process in Part 55 to determine consistency~~
3782 ~~with requirements of EO 11990.~~
3783

3784 ~~The process for identifying wetlands is set out in Part 55. As primary screening, HUD~~
3785 ~~will verify whether the project area is located in proximity to wetlands identified on the~~
3786 ~~National Wetlands Inventory maintained by the U.S. Fish and Wildlife Service (FWS); if~~
3787 ~~so, HUD will attempt to consult with FWS. Construction projects that will result in new~~
3788 ~~construction as defined in EO 11990 in a wetland will be considered only after HUD~~
3789 ~~conducts an eight-step decision-making process, which is the same as the decision~~
3790 ~~making process used for floodplains and includes consultation, issuing two public notices~~
3791 ~~and taking public comment. However, the first five steps are not required if the project~~
3792 ~~involves new construction outside the 100-year floodplain or 500-year floodplain and the~~
3793 ~~applicant has submitted with its application to HUD an individual Section 404 permit~~
3794 ~~(including approval conditions) issued by the U.S. Army Corps of Engineers, or by a~~
3795 ~~State or Tribal government under Section 404(h) of the Clean Water Act, and all~~
3796 ~~wetlands adversely affected by the project are covered by the permit. Wetlands under~~
3797 ~~local or state jurisdiction are subject to state or local review as appropriate. However,~~
3798 ~~compliance with state or local requirements is not a substitute for the eight-step process.~~

3799 ~~1. The Lender must provide extensive data to aid HUD in evaluating wetland impacts.~~
3800 ~~The Lender should consult early with HUD when a site could potentially impact a~~
3801 ~~wetlands area.~~
3802

3803 ~~2. Only in rare cases will rehabilitation, purchase, and refinancing proposals be~~
3804 ~~permitted to involve wetlands impacts.~~

- 3805
3806 3. ~~When on-site wetlands exist, HUD will require assurance from the Borrower that no~~
3807 ~~activities that may impact a wetland will be undertaken without prior approval from~~
3808 ~~HUD.~~

3809
3810 **P. ~~Other Applicable Federal Laws (24 CFR 50.4):~~**

- 3811
3812 1. ~~Endangered Species: Under Section 7 of the Endangered Species Act, HUD must~~
3813 ~~consult with the U.S. Fish and Wildlife Service (FWS) and/or, the National Marine~~
3814 ~~Fisheries Service (NMFS), whenever a proposal may affect an endangered or~~
3815 ~~threatened species or its habitat. A required consultation should be completed for any~~
3816 ~~site within the critical habitat of a listed species, but consultation may also be~~
3817 ~~required even if no critical habitat is. In areas where impacts on endangered or~~
3818 ~~threatened species are a concern, all appropriate information and the results of~~
3819 ~~research regarding possible impacts of the project should be included in the~~
3820 ~~application submission. Lenders should not contact FWS or NMFS directly.~~
3821 ~~Consultation under Section 7 may result in more stringent conservation measures than~~
3822 ~~would otherwise be imposed.~~

- 3823
3824 2. ~~Sole Source Aquifers: An aquifer is an underground body of water usually kept in~~
3825 ~~place by rock, gravel, or sand. New construction and some rehabilitation projects~~
3826 ~~located within the boundaries of the recharge area of a designated sole source aquifer~~
3827 ~~must be reviewed by EPA for their potential to contaminate the sole source aquifer.~~

3828
3829 ~~Farmlands Protection: If the site of a proposed new construction project has not been~~
3830 ~~previously developed, the project must conform to the Farmland Protection Policy Act. The~~
3831 ~~environmental review must determine if the proposed HUD-assisted project site is located in~~
3832 ~~an area committed to urban uses and if not, whether it includes Important Farmland as~~
3833 ~~identified by the Natural Resources and Conservation Service (NRCS), Department of~~
3834 ~~Agriculture. If the proposed project site includes Important Farmland, the environmental~~
3835 ~~review must include an evaluation of the land using form AD-1006, "Farmland Conversion~~
3836 ~~Impact Rating." This requirement applies only to new construction activities and the~~
3837 ~~acquisition of undeveloped land.~~

- 3838
3839 3. ~~Environmental Justice: HUD will also determine whether or not Executive Order~~
3840 ~~12898, "Federal Actions to Address Environmental Justice in Minority Populations~~
3841 ~~and Low Income Populations," is applicable to the project. This EO requires that~~
3842 ~~federal actions not result in disproportionately high and adverse human health or~~
3843 ~~environmental effects on minority populations and low income populations. When a~~
3844 ~~project impacts a minority or low income population, or when siting of a project~~
3845 ~~raises questions of discrimination, HUD will perform the necessary analysis before~~
3846 ~~determining acceptability of the project. Whenever possible, the Environmental~~
3847 ~~Justice review should reflect input from affected minority and low income~~
3848 ~~communities. For more information, see HUD's website at:~~
3849 ~~<https://www.hudexchange.info/environmental-review/environmental-justice>.~~

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~~HUD will advise the Lender of any Environmental Justice concerns including recommendations for their resolution. In most cases the preferred resolution would be to modify the project to eliminate or at least reduce the adverse effects, when feasible.~~

~~4. Applications for Firm Commitment for mortgage insurance are also subject to provisions of other Federal authorities, including the Wild and Scenic Rivers Act, and regulations implementing the Clean Air Act. There are state regulations implementing air quality requirements. HUD may require mitigation of a variety of nuisances and hazards on the property that would affect the health and safety of residents and the security of the collateral.~~

~~Q. Commonly Found or Observed Additional Nuisances and Hazards:~~

~~The following requirements apply to existing projects as well as to new construction and substantial rehabilitation activities.~~

~~B. All parts of any structure must be at least 10 feet from the outer boundary of the easement for any high pressure gas or liquid petroleum transportation pipeline.~~

~~C. No structure shall be located within the easement of any overhead high voltage transmission line. In addition, all structures shall be located outside the engineered fall distance of any support structure for high voltage transmission lines, radio antennae, satellite towers, cellular towers, etc. This does not apply to local service electric lines and poles. This policy does not apply to water towers.~~

~~Compliance with HUD requirements regarding operating and/or abandoned oil or gas wells, sour gas wells, and slush pits is recorded.~~

~~1. Operating or planned drilling site: No residential structures may be within 300 feet from the boundary of the drilling site.~~

~~2. 1. Operating well: No residential structures may be within 75 feet of an operating well unless the following mitigating measures are taken:~~

- ~~a. Maintenance of nuisance controls,~~
 - ~~a) Controls of noise levels caused by pumping,~~
 - ~~b) Restrictions on hours of operation,~~
 - ~~c) Limits on supporting truck traffic, and~~

~~b.a. Spill controls to reduce risk of contamination:~~

- ~~c. Abandoned well~~
 - ~~a) Confirmation by the State government that the well is safely and permanently abandoned and that no residential structures are within 10 feet must be obtained.~~

~~d.a. If there is no confirmation letter, no residential structures may be within 300 feet of an abandoned well.~~

~~3. 1. Sour gas (hydrogen sulfide bi-product) wells: Separation distance must be determined by a petroleum engineer, with concurrence by State government.~~

- 3896 a. ~~Slush pits (used for drilling mud mixes for well lubrication):~~
3897 i. ~~If on site, hazards analysis is required to be performed pursuant to~~
3898 ~~Section 7.3 above. Mitigation must include, but not necessarily be~~
3899 ~~limited to, removal of all drilling mud from the site and backfilling with~~
3900 ~~clean compacted material.~~
3901 ii. ~~If offsite, an analysis must be performed pursuant to Section 7.3~~
3902 ~~regarding offsite hazards.~~

3903
3904 D. ~~If any part of a site appears to be developed on filled ground, HUD may require that~~
3905 ~~all grading be properly controlled to prevent differential earth movement, sliding,~~
3906 ~~erosion, and/or other occurrences which might damage dwellings, streets or other~~
3907 ~~improvements. Soil boring samples from filled areas must be submitted, as well as~~
3908 ~~any other documentation regarding soil fill composition and compaction, to satisfy~~
3909 ~~HUD as to its stability in place, re-grading or re-use.~~

3910
3911 E. ~~If an existing property has a legal non-conforming use/structure, and the current~~
3912 ~~zoning regulations will not allow the property to be rebuilt to the current density, then~~
3913 ~~the owners are required to purchase Ordinance and Law insurance coverage with their~~
3914 ~~property insurance; see Production, Chapter 14.5.B.~~

3915
3916 F. ~~HUD may adopt additional requirements to address unique local concerns in specific~~
3917 ~~geographic areas, but if any local requirement is mandated, ORCF must inform the~~
3918 ~~HUD Headquarters Housing Environmental Clearance Officer of the requirement.~~

7.6

Lead Based Paint HUD Responsibilities in Reviewing Cases Requiring Remediation

3921
3922 1. ~~Lead based paint (LBP) may be present in buildings built prior to 1978. During any~~
3923 ~~proposed repair work, the removal and disposal of the LBP must be performed in~~
3924 ~~accordance with regulations as published and enforced by the State and the Department~~
3925 ~~of Labor Occupational Safety and Health Administration (OSHA). If required,~~
3926 ~~appropriate lead paint remediation can be a required Firm Commitment condition on the~~
3927 ~~HEROS Form HUD-4128. LSTF lead based paint requirements must be complied with.~~

3928
3929 A. ~~HUD's lead based paint requirements at 24 CFR Part 35 are applicable to housing built~~
3930 ~~before 1978, but do not apply to housing designated exclusively for the elderly or persons~~
3931 ~~with disabilities, unless a child of less than 6 years of age resides or is expected to reside in~~
3932 ~~such housing. In addition, the requirements do not apply to 0 bedroom dwelling units. With~~
3933 ~~the exception of Section 7.6.A, the requirements are not applicable to rehabilitation,~~
3934 ~~refinancing or purchase of health care facilities under Section 232.~~

- 3937
3938 A. ~~While many uses of asbestos are technically allowed today, several uses of asbestos were~~
3939 ~~banned starting in the early 1970s, and many commercial enterprises have stopped installing~~
3940 ~~asbestos products as of the late 1970s. Some of the more common examples of asbestos-~~
3941 ~~containing materials include insulation, sprayed-on finishes, ceilings, vinyl floor tile and the~~
3942 ~~adhesive to fix the tile in place, siding, and roofing. For any proposed project site containing~~
3943 ~~structures built before 1978, asbestos should be discussed in the Lender Narrative, and an~~
3944 ~~asbestos survey per 7.7.B. or C. is required.~~
3945
- 3946 B. ~~For any structures on the site built before 1978 that are to be demolished, a comprehensive~~
3947 ~~building asbestos survey by a qualified asbestos inspector is required. It must be based on a~~
3948 ~~thorough inspection to identify the location and condition of asbestos throughout any~~
3949 ~~structures and performed pursuant to the “pre-construction survey” requirements of ASTM~~
3950 ~~E2356-10 “Standard Practice for Comprehensive Building Asbestos Surveys” (or the most~~
3951 ~~recent edition). The survey must be completed prior to HUD issuance of a Firm~~
3952 ~~Commitment.~~
3953
- 3954 C. ~~Other than for structures to be demolished per 7.7.B, a qualified asbestos inspector must~~
3955 ~~perform a comprehensive building asbestos survey on any building that was in whole or part~~
3956 ~~constructed prior to 1978, based on a thorough inspection, to identify the location and~~
3957 ~~condition of any asbestos throughout any structures pursuant to the “baseline survey”~~
3958 ~~requirements of ASTM E2356-10 (or the most recent edition). The survey must be~~
3959 ~~completed prior to HUD issuance of a Firm Commitment. In those cases where suspect~~
3960 ~~asbestos is found, it should either be assumed to be asbestos or confirmatory testing should~~
3961 ~~be required. If the asbestos survey indicates the presence of asbestos or the presence of~~
3962 ~~asbestos is assumed, and if the application for Firm Commitment is approved, HUD will~~
3963 ~~condition the approval on an appropriate mix of asbestos abatement and an asbestos~~
3964 ~~operations and maintenance plan (O&M plan). O&M programs which establish management~~
3965 ~~protocols for asbestos containing materials should be accompanied with evidence of hazard~~
3966 ~~awareness training for maintenance staff. Training is to include Local, State and Federal~~
3967 ~~regulations, as applicable.~~
3968
- 3969 D. ~~If Asbestos Containing Materials (ACMs) or suspect ACMs are identified at a facility, HUD~~
3970 ~~requires that a response action be appropriate to address the hazard. Response actions may~~
3971 ~~include complete removal, limited removal/repair, encapsulation, enclosure or management~~
3972 ~~under an O&M Program, as recommended by an accredited professional. The following are~~
3973 ~~examples for when certain response actions may be appropriate.~~
3974

3975 Removal

- 3976 i. ~~Damaged friable materials~~
3977 ii.i. ~~Friable materials in good condition with high potential for disturbance (e.g.,~~
3978 ~~accessible pipe or tank insulation, ceiling tiles where air exchanges occur in plenum~~
3979 ~~above, ceiling tiles that are required to be moved to access mechanical equipment~~

3980 ~~or piping on a routine basis, etc.)~~

3981 ~~a. Limited removal/repair, encapsulation or enclosure~~

3982 ~~i. Damaged non friable materials (limited removal/repair)~~

3983 ~~ii.i. Limited damage to ceiling texture (limited removal/repair)~~

3984 ~~iii.i. More extensive wall and/or ceiling texture damage or highly friable texture~~

3985 ~~iv.i. Pipe insulation with limited damage but with limited potential for~~
3986 ~~disturbance/impact (enclosure or removal)~~

3987 O&M

3988 ~~Non friable materials in good condition~~

3989 ~~i. Joint compound or wall and ceiling textures in good condition~~

3990 ~~ii.i. Adhesive ceiling tiles with no real potential for disturbance~~

3991 ~~Friable pipe insulation materials in mechanical areas in good condition with limited potential~~
3992 ~~for disturbance/impact by routine maintenance activities.~~

3993 ~~1. Other than for asbestos abatement on a structure that will be completely demolished, the~~
3994 ~~cost of any asbestos abatement activities may be included in the proposed mortgage loan,~~
3995 ~~with HUD approval. If required, appropriate asbestos remediation can be indicated as a~~
3996 ~~required Firm Commitment condition if HUD approves.~~

4000 ~~E. All asbestos abatement shall be done in accordance with EPA requirements for air pollution~~
4001 ~~prevention pursuant to 40 CFR subpart M, especially 40 CFR 61.145, and with OSHA~~
4002 ~~requirements for Worker Protection, pursuant to 29 CFR 1926.1101. Any LSTF asbestos~~
4003 ~~abatement and worker protection rules also apply. All asbestos abatement must be performed~~
4004 ~~by a qualified asbestos abatement contractor.~~

4005 7.8

4006 Radon

4007 ~~A. Background. One common constituent of soil and rock is the unstable element uranium. One~~
4008 ~~of the decay products of uranium is radon, a colorless, odorless gas. Under certain natural~~
4009 ~~conditions, the radon gas can enter surface soils and become part of the "soil gas"~~
4010 ~~environment, which then can enter the air, including air inside of buildings. When soil gas~~
4011 ~~that contains radon enters a building, radon and its decay products are either directly inhaled,~~
4012 ~~or attached to dust on walls, floors and in the air, which then can be inhaled. These decay~~
4013 ~~products then undergo further decay, resulting in the release of subatomic alpha particles.~~
4014 ~~This alpha particle radiation can cause mutations in lung tissue which can lead to lung~~
4015 ~~cancer. The risk of contracting lung cancer from radon increases with an increase in the~~
4016 ~~concentration of radon in the air that is breathed by building occupants. EPA recommends~~
4017 ~~mitigation for residences with radon concentrations at or above 4 picocuries per liter of air~~
4018 ~~(pCi/L). Please see EPA Radon Map on the Environmental Resource Page located on the~~
4019 ~~Section 232 Program website.~~

4023 B. General Requirements

4024 1. ~~Radon Report.~~

4026 a. ~~The radon report is required for all mortgage insurance applications, unless an~~
4027 ~~exception listed in Section 7.8.B.3 applies.~~

4028 b. ~~The radon report shall be included in the application, as applicable. For New~~
4029 ~~Constuction, please see Production, Chapter 7.8.E.~~

4030 c. ~~Contents. The radon report shall include the results of any testing performed,~~
4031 ~~the details of any recommended mitigation, and the timing of any such~~
4032 ~~mitigation. An amended radon report must be issued if the testing and/or~~
4033 ~~mitigation must occur after application submittal according to the~~
4034 ~~requirements below. The radon report must be signed and certified as to its~~
4035 ~~compliance with the requirements of this section by a Radon Professional.~~

4036 2. ~~Radon Professional.~~

4037 a. ~~All testing and mitigation must be performed under the direct supervision of a~~
4038 ~~Radon Professional, in accordance with the protocols referenced in this~~
4039 ~~section.~~

4040 ~~b.a. Radon Certification/License of the Radon Professional is required as follows:~~

4041 ~~i. Certification from either the American Association of Radon Scientists and~~
4042 ~~Technologists (AARST) National Radon Proficiency Program (NRPP) or the~~
4043 ~~National Radon Safety Board (NRSB); and~~

4044 ~~ii.i. Certification/License from the state in which the testing or mitigation work is~~
4045 ~~being conducted, if the state has this requirement.~~

4046 3. ~~Exceptions to Radon Report.~~

4048 a. ~~A Radon Professional may conclude that neither testing nor mitigation is~~
4049 ~~necessary based on a physical inspection of the property, the characteristics of~~
4050 ~~the buildings, and other valid justifications. An example of a valid~~
4051 ~~justification is having only a garage on the surface level that is open to the air~~
4052 ~~and is fully ventilated. Any such justifications as to why neither testing nor~~
4053 ~~mitigation is necessary must be provided by the Radon Professional (signed~~
4054 ~~letter) and documented in the Environmental Report. Any waiver requests~~
4055 ~~submitted for this section (7.8.) must be made in accordance with this~~
4056 ~~exception. Requests for waiver of this section 7.8 that do not meet the~~
4057 ~~requirements of this exception will not be granted.~~

4058 b. ~~A radon report is not required for applications that are categorically excluded~~
4059 ~~under 24 CFR 50.19(b) (21) (see 7.1.A.5, above).~~

4060 ~~e.a. Applicants are encouraged to test for radon even if a radon report is not required per~~
4061 ~~the exceptions above. Any such testing must follow the testing protocols and resident~~
4062 ~~notification protocols below, and must then be incorporated within a radon report as~~
4063 ~~described within this section. If the results of such testing indicate levels of radon~~
4064 ~~above the threshold for unacceptability, mitigation as described in this section is~~
4065 ~~required, with the mitigation requirements for Section 223(a)(7) projects the same as~~
4066 ~~those for 223(f) projects.~~

4067 ~~Testing Protocols.~~

- 4069 d. ~~Radon testing must follow the protocols set by the American Association of~~
4070 ~~Radon Scientists and Technologists, Protocol for Conducting Measurements~~
4071 ~~of Radon and Radon Decay Products in Schools and Large Buildings (ANSI-~~
4072 ~~AARST MALB 2014, or most recent edition) (Please see ORCF~~
4073 ~~Environmental Resource Page located on the Section 232 Program website).~~
4074 ~~Applicant has the option to test 25% of ground level units/rooms in each~~
4075 ~~building (sampling). If any of the sampled units/rooms is tested above the 4.0~~
4076 ~~picocuries per liter (4.0 pCi/L), then they have two options:~~
4077 ~~i. Mitigation in 100% ground level units/rooms or~~
4078 ~~ii. Test 100% ground level units/rooms. If during 100% ground level~~
4079 ~~test, any units/rooms test above 4.0 pCi/L level, then follow the~~
4080 ~~requirements of the standard above.~~
4081 e. ~~Threshold for unacceptability: 4.0 picocuries per liter (4.0 pCi/L) based on~~
4082 ~~initial and any confirmatory testing, if performed.~~

4083
4084 ~~4. Occupant Notification:~~

- 4085 a. ~~Testing. Occupants of all new applications for OHP mortgage insurance~~
4086 ~~programs shall be informed of forthcoming testing in the manner described in~~
4087 ~~AARST MALB 2014.~~
4088 ~~b. a. Mitigation. Occupants shall be informed both prior to and after mitigation activities.~~
4089 ~~In the case of new construction, incoming occupants shall be informed of radon~~
4090 ~~mitigation activities.~~

4091
4092 ~~5. Mitigation Standards. Radon resistant construction is required for all new~~
4093 ~~construction, and radon mitigation is required for existing construction where testing~~
4094 ~~has revealed that radon levels exceed the threshold for unacceptability. The Radon~~
4095 ~~Professional must assure that radon resistant construction or radon mitigation, when~~
4096 ~~required, conforms to the following standards.~~

- 4097 a. ~~Existing buildings:~~
4098 ~~ANSI AARST RMS LB 2014, Radon Mitigation Standards for Schools and~~
4099 ~~Large Buildings (Please see the ORCF Environmental Resource Page located~~
4100 ~~on the Section 232 Program website).~~

- 4101 ~~i. New construction: Radon Prevention in the Design and Construction of Schools~~
4102 ~~and Other Large Buildings EPA 625 R 92 016, June 1994 (Please see the ORCF~~
4103 ~~Environmental Resource Page located on the Section 232 Program website).~~

4104
4105 ~~6. Mitigation Timing. For new construction and substantial rehabilitation properties, all~~
4106 ~~mitigation, including follow up testing, must be completed prior to Final Closing.~~
4107 ~~Radon mitigation included as part of a Section 223(f) or 223(a)(7) project's repairs~~
4108 ~~must be completed as quickly as practicable, and in any event, no later than 12~~
4109 ~~months after Closing.~~

4110
4111 ~~7.1. Certificate of completion. A certificate of completion from the Radon Professional must~~
4112 ~~be submitted and appended to the radon report once radon testing and/or mitigation is~~
4113 ~~completed.~~

4115 8. HUD requires an operation and maintenance (O+M) plan for any mitigation project
4116 that is active. A condition shall be attached to the Firm Commitment requiring that
4117 the borrower operate and maintain the property consistent with the referenced O+M
4118 plan(s) for the duration of the insured mortgage. Given the ongoing risk associated
4119 with radon, an O+M requirement for maintaining active mitigation systems should be
4120 implemented when an active mitigation system is present on the property.

4121
4122 9. Cost estimate. Use detailed plans and specifications supplied by the lender's
4123 architectural analyst as a basis for the cost estimate. Estimates must reflect the
4124 general level of construction costs in the locality where construction takes place.
4125 Costs must be projected to the estimated construction start date.

4126
4127 ~~10.1. Section 223(f) and Non-Excepted Section 223(a)(7).~~

4128
4129 11. All Section 223(f) and non-excepted 223(a)(7) projects must be tested for radon in
4130 accordance with 7.8.B.4, above. Testing must be performed no earlier than 1 year
4131 prior to application submission.

4132
4133 ~~a. Mitigation. See requirements at 7.8.B.6. If estimated costs exceed the allowable cost
4134 for the Section 223(f) program, the application cannot be approved but may be
4135 considered under the substantial rehabilitation program.~~

4136
4137 ~~C. Substantial Rehabilitation and Conversions. (Applies to all Radon Zones)~~

4138
4139 1. Testing prior to substantial rehabilitation or conversion.

4140 a. Early testing not feasible. For some proposals, such as a conversion of an
4141 existing building from non-residential to residential, the building envelope
4142 may change to such an extent that early testing would not be appropriate and
4143 in some cases not possible. If this is the case, proceed directly to mitigation as
4144 discussed at Section 7.8.D.2. Radon reports are required with the post-
4145 construction testing prior to Final Closing.

4146 b. Early testing when feasible.

4147 i. Must be performed no earlier than 1 year prior to application
4148 submission in accordance with 7.8.B.4.

4149 ~~ii.i. If test results are below the threshold, no mitigation is required.~~

4150 ~~iii. If test results are at or above the threshold, mitigation must be built
4151 into the project design per Section 7.8.D.2.a.~~

4152
4153 2. Mitigation.

4154 a. If mitigation is built into project design, it must be conducted in accordance
4155 with the requirements at 7.8.B.6.

4156 b. If mitigation is not built into project design, after construction is complete but
4157 prior to Final Closing, radon testing must be conducted. If testing results are
4158 above the threshold, retrofit pursuant to the requirements at 7.8.B.6 is
4159 required.

- 4161 ~~D. New Construction.~~
- 4162
- 4163 ~~1. Radon resistant construction is required for all radon zones.~~
- 4164
- 4165 ~~2. Radon reports are required with the post-construction testing prior to Final Closing.~~
- 4166
- 4167 ~~3. Radon Zone 1:~~
- 4168 ~~a. Construction Requirements: All new construction in Radon Zone 1 must meet~~
- 4169 ~~all of the requirements of ASTM E1465-08a for installation of passive~~
- 4170 ~~systems.~~
- 4171 ~~b. Post-construction testing is required prior to Final Closing. If testing results~~
- 4172 ~~are above the threshold, conversion from a passive system to a fan-powered~~
- 4173 ~~system is required.~~
- 4174
- 4175 ~~4. Radon Zones 2 and 3:~~
- 4176 ~~a. Construction requirements.~~
- 4177 ~~i. Gas permeable layer. The gas permeable layer must meet all of the~~
- 4178 ~~requirements of ASTM E1465-08a, Section 6.4.~~
- 4179 ~~ii. Ground cover. The concrete slabs and plastic membranes that seal the~~
- 4180 ~~top of the gas permeable layer must meet all of the requirements of~~
- 4181 ~~ASTM E 1465-08a, Section 6.2.~~
- 4182 ~~iii. Foundation walls. Foundation walls must meet all of the requirements~~
- 4183 ~~of ASTM E1465-08a, Section 6.3.~~
- 4184 ~~b. Post-construction testing is required, except as provided at 7.8.B.3.~~
- 4185 ~~i. Radon testing must be performed after construction is complete, but~~
- 4186 ~~prior to Final Closing.~~
- 4187 ~~ii. If testing results are above the threshold, retrofit based on the~~
- 4188 ~~applicable standard at 7.8.B.6 is required, with installation of a passive~~
- 4189 ~~system. If testing results remain above threshold, a fan-powered~~
- 4190 ~~system is required.~~
- 4191