

PA-UR

From: "Ellis, Douglas" <dellis1@entergy.com>
To: "Alicia Williamson" <ARW1@nrc.gov>
Date: 07/06/2006 12:57:24 PM
Subject: FW: PNPS ER EJ writeup

Alicia - we seem to be crossing audix messages. Here is the electronic version of the Environmental Justice that Jill Brochu prepared and as I understand it, already sent to you. Jill indicates the electronic version does not contain 9 or so figures due to their file size but the figures are contained in the CD that I am mailing to you via FedEx today. A hard copy of the electronic version of the Environmental Justice, sans figures, is also included as you requested.

Included in the mailing is a copy of Appendix B to Marine Ecology Studies Report #67 that you requested.

Also included in the mailing is a copy of the list of documents mailed to you previously. We were to discuss this but our mutual availability did not allow the discussion; of the document numbers you identified [50, 60, 69, 83, and 86 (114)], only document 69 (historic records of well pit in Area 006) was not sent because such records could not be located.

I will discuss with you and provide to you as necessary, any additional information or document you may need.

Doug Ellis.

From: Brochu, Jill
Sent: Thursday, June 29, 2006 2:15 PM
To: Ellis, Douglas
Subject: PNPS ER EJ writeup

Doug,

Attached is the PNPS rewrite of the Environmental Justice Section of the Environmental Report for License Renewal. Due to problems with the original version of the Environmental Justice section of the ER, it was entirely reworked and new maps were created which are on the disk provided.

Please let me know if you require additional information.

CC: "Ellis, Douglas" <dellis1@entergy.com>, "Brochu, Jill" <JBroc94@entergy.com>

Mail Envelope Properties (44AD40EC.6EE : 19 : 34542)

Subject: FW: PNPS ER EJ writeup
Creation Date 07/06/2006 12:57:02 PM
From: "Ellis, Douglas" <dellis1@entergy.com>

Created By: dellis1@entergy.com

Recipients

nrc.gov
 TWGWPO04.HQGWDO01
 ARW1 (Alicia Williamson)

entergy.com
 JBroc94 CC (Jill Brochu)

Post Office

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Route

nrc.gov
 entergy.com

Files	Size	Date & Time
MESSAGE	1591	07/06/2006 12:57:02 PM
TEXT.htm	6187	
PNPS EJ 1.doc	114176	
Mime.822	167194	

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results

Message is eligible for Junk Mail handling
 This message was not classified as Junk Mail

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
 Junk Mail handling disabled by Administrator
 Junk List is not enabled
 Junk Mail using personal address books is not enabled

OWGWPO01.HQGWDO01	nrc.gov
OWGWPO02.HQGWDO01	nrc.gov
OWGWPO03.HQGWDO01	nrc.gov
TWGWPO01.HQGWDO01	nrc.gov
TWGWPO02.HQGWDO01	nrc.gov
TWGWPO04.HQGWDO01	nrc.gov
kp1_po.KP_DO	nrc.gov

Files	Size	Date & Time
MESSAGE	4525	06/30/2006 2:16:39 PM

Options

Expiration Date:	None
Priority:	Standard
ReplyRequested:	No
Return Notification:	None

Concealed Subject:	No
Security:	Standard

Junk Mail Handling Evaluation Results

Message is not eligible for Junk Mail handling
Message is from an internal sender

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

2.6.2 Minority and Low-Income Populations

2.6.2.1 Background

The NRC performs environmental justice analyses utilizing a 50-mile radius around the plant as the environmental impact site and the state as the geographic area for comparative analysis. Entergy has adopted this approach for identifying the minority and low-income populations that could be affected by PNPS operations.

Entergy used ArcView® geographic information system software to combine U.S. Census Bureau (USCB) TIGER line data with USCB 2000 census data to determine minority and low-income characteristics (at the block-group level) within the 50-mile radius environmental impact site. Entergy included all block groups if any of their area lay within 50 miles of PNPS. The 50-mile radius includes 3,863 block groups. Entergy defines the geographic area for PNPS as a two-state area, with the largest portion of that area (89%) located in Massachusetts and a smaller portion (11%) in Rhode Island.

2.6.2.2 Minority Populations

The NRC procedural guidance for performing environmental assessments and considering environmental issues defines a "minority" population as the racial categories: American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, Black races, other races, more than 2 races, and the aggregate of all minority races. Hispanic ethnicity is also defined as a minority population category [Reference 2-33]. The guidance indicates that a minority population exists if either of the two following conditions exists:

Exceeds 50 Percent - the minority population of the environmental impact site exceeds 50 percent, or

More than 20 Percentage Points Greater - the minority population percentage of the environmental impact site is significantly greater (typically at least 20 percentage points) than the minority population percentage in the geographic area chosen for comparative analysis.

NRC guidance calls for use of the most recent USCB decennial census data. Entergy used 2000 census data [References 2-43 and 2-44] to determine the percentage of the total population in the two states that belong to each minority category (Table 2-3a). This information was then used to calculate minimum thresholds for each minority category. Because no block groups in the 50-mile radius environmental impact site exceeded the 50% minority population criterion above, the "more than 20% greater" criterion was used to establish minority population thresholds (Table 2-3a). Any block group with a minority category percentage that exceeded any of the minimum threshold listed in Table 2-3a was defined as a "minority population."

For each minority category, Entergy divided USCB minority population numbers for each block group by the total population within that block group to obtain the percent of the block group's population that belonged to each minority category. For each of the 3,863 block groups within 50 miles of PNPS, Entergy calculated the percent of the population in each minority category and compared the result to the corresponding geographic area's minority threshold percentages to determine if a minority population exists. The number of block groups that exceeded minority thresholds is summarized in Tables 2-3b and 2-3c. The location of each minority population within 50 miles of PNPS is shown in Figures 2-13 through 2-19.

Based on the "more than 20 percent" criterion, a Native Hawaiian or other Pacific Islander minority population exists in one block group in Suffolk County, Massachusetts. Black minority populations exist in 261 block groups, with 233 of the block groups in Massachusetts and 28 in Rhode Island. Other minority race populations exist in 135 block groups, with 77 occurring in Massachusetts and 58 are in Rhode Island. No block groups exceeded the minimum threshold for more than 2 races. Aggregate of minority racial populations exist in 595 block groups, with 477 of the block groups occurring in Massachusetts and 120 in Rhode Island. Minority populations based on hispanic ethnicity occur in 240 block groups, with 145 of them in Massachusetts and 95 in Rhode Island.

Overall, no minority populations were identified within a 6-mile radius of PNPS. The nearest minority population within a 50-mile radius was in west-central Plymouth County near the community of Brockton where thresholds for both black and aggregate minorities were exceeded. These populations are approximately 25 miles west of the PNPS site. Other minority populations within 50 miles of PNPS were typically clustered in the Boston, Massachusetts and Providence, Rhode Island areas.

2.6.2.3 Low-Income Populations

NRC guidance defines "low-income" by using USCB statistical poverty thresholds for the year 1999 [Reference 2-33, Appendix D]. Low-income populations within the 50-mile radius of PNPS were identified using information on both the number of individuals and number of households below the poverty level in Massachusetts and Rhode Island and block groups within the environmental impact site (50-mile radius). The USCB values for the number of individuals and households below the poverty level in Massachusetts was 9.3% and 9.8%, respectively (Table 2-3a). The number of individuals and households below the poverty level in Rhode Island was 11.9% and 12.4%, respectively.

A low-income population is considered to be present if:

- (1) the low-income population of the block group or environmental impact site exceeds 50%, or

- (2) the percentage of households below the poverty level in a block group is significantly greater (typically at least 20 points) than the low-income population percentage in the geographic area chosen for comparative analysis.

Because no block groups had more than 50% of its individuals or households below the poverty level, the "greater than 20%" criterion was used to identify low-income populations within the 50-mile radius environmental impact site (Table 2-3a). The number and percentage of block groups that exceeded these thresholds are included in Tables 2-3b and 2-3c. The locations of the low-income populations within the 50-mile radius area are shown in Figures 2-20 and 2-21.

Based on the "more than 20 percent" criterion, low-income "individual" populations exist in 190 block groups in Massachusetts and 79 in Rhode Island. Low-income populations based on the number of "households" exist in 179 block groups in Massachusetts and 74 block groups in Rhode Island.

Overall, no low-income populations were identified within a 6-mile radius of PNPS. The nearest low-income population occurring within a 50-mile radius was in northwest Plymouth County near the community of Brockton where thresholds for both low-income individuals and households were exceeded. These populations are approximately 25 miles northwest of the PNPS site. Other low-income populations within 50 miles of PNPS were clustered near Boston and in Bristol County near the communities of Fall River and New Bedford, Massachusetts and in Providence County Rhode Island.

Table 2-3a: The average percentage of minority and low-income individuals in the MA and RI geographic areas tne the threshold criteria for identifying minority and low-income populations at the block group level

State	American Indian Alaska Native	Asian	Native Hawaiian Or Other Pacific Islander	Black Races	Other races	More than 2 races	Aggregate of minority races	Hispanic Ethnicity	Low-income Population (individuals)	Low-income Population (Households)
MA	0.2	3.8	0.0	5.4	3.7	2.3	15.5	6.8	9.3	9.8
RI	0.5	2.3	0.1	4.5	5.0	2.7	15.0	8.7	11.9	12.4
Minority and low-income thresholds										
MA	20.2	23.8	20.0	25.4	23.7	22.3	35.5	26.8	29.3	29.8
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For each minority category, Entergy divided USCB minority population numbers for each block group by the total population within that block group to obtain the percent of the block group's population that belonged to each minority category. For each of the 3,863 block groups within 50 miles of PNPS, Entergy calculated the percent of the population in each minority category and compared the result to the corresponding geographic area's minority threshold percentages to determine if a minority population exists. The number of block groups that exceeded minority thresholds is summarized in Tables 2-3b and 2-3c. The location of each minority population within 50 miles of PNPS is shown in Figures 2-13 through 2-19.

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Table 2-3a: The average percentage of minority and low-income individuals in the MA and RI geographic areas and the threshold criteria for identifying minority and low-income populations at the block group level

State	American Indian Alaska Native	Asian	Native Hawaiian Or Other Pacific Islander	Black Races	Other races	More than 2 races	Aggregate of minority races	Hispanic Ethnicity	Low-income Population (individuals)	Low-income Population (Households)
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RI	0.5	2.3	0.1	4.5	5.0	2.7	15.0	8.7	11.9	12.4
Minority and low-income thresholds										
MA	20.2	23.8	20.0	25.4	23.7	22.3	35.5	26.8	29.3	29.8
RI	20.5	22.3	20.1	24.5	25.0	22.7	35.0	28.7	31.9	32.4

Table 2-3b. The number of block groups that exceed thresholds for minority and low-income populations for the 15 counties located within a 50-mile radius of PNPS.

State	County	Number of Block Groups within 50 mile radius	American Indian Alaska Native	Asian	Native Hawaiian Or Other Pacific Islander	Black Races	Other races	More than 2 races	Aggregate of minority races	Hispanic Ethnicity	Low-income Population (individuals)	Low-income Population (Households)
MA	Barnstable	198	0	0	0	0	0	0	0	0	1	0
MA	Bristol	417	0	1	0	0	11	0	22	6	34	34
MA	Dukes	20	1	0	0	0	0	0	1	0	0	0
MA	Essex	317	0	0	0	1	5	0	33	25	12	10
MA	Middlesex	761	0	11	0	14	2	0	52	8	9	7
MA	Nantucket	4	0	0	0	0	0	0	0	0	0	0
MA	Norfolk	473	0	14	0	5	0	0	20	0	3	2
MA	Plymouth	366	0	0	0	17	8	0	43	0	11	11
MA	Suffolk	630	0	28	1	196	51	0	304	106	120	115
MA	Worcester	18	0	0	0	0	0	0	0	0	0	0
RI	Bristol	41	0	0	0	0	0	0	0	0	0	0
RI	Kent	83	0	0	0	0	0	0	0	0	1	0
RI	Newport	60	0	0	0	1	0	0	2	0	1	1
RI	Providence	471	0	3	0	27	58	0	118	95	77	73
RI	Washington	4	0	0	0	0	0	0	0	0	0	0
	Total	3863	1	57	1	261	135	0	595	240	269	253
Minority and low-income thresholds												
MA		3204	20.2	23.8	20.0	25.4	23.7	22.3	35.5	26.8	29.3	29.8
RI		659	20.5	22.3	20.1	24.5	25.0	22.7	35.0	28.7	31.9	32.4

Table 2-3c. Number and percentage of census block groups within a 50-mile radius of PNPS that exceed thresholds for minority and low-income populations.

Minority and Low-income Categories	MA Threshold (%)	Number Block Groups that Exceed State Threshold	Percentage of Block Groups that Exceed State Threshold
American Indian & Alaskan Native	20.2	1	0.0
Asian	23.8	54	1.7
Native Hawaiian or other Pacific Islander	20.0	1	0.0
Black Races	25.4	223	6.9
Other Races	23.7	77	2.4
More than two races	22.3	0	0.0
Aggregate of minority races	35.4	477	14.8
Hispanic Ethnicity	26.8	145	4.5
Low Income - Population	29.3	190	5.9
Low Income - Households	29.8	179	5.6
	RI Threshold (%)	Number Block Groups that Exceed State Threshold	Percentage of Block Groups that Exceed State Threshold
American Indian & Alaskan Native	20.5	0	0.0
Asian	22.3	3	0.5
Native Hawaiian or other Pacific Islander	20.1	0	0.0
Black Races	24.5	28	4.2
Other Races	25	58	8.8
More than two races	22.7	0	0.0
Aggregate of minority races	35.1	120	18.2
Hispanic Ethnicity	28.7	95	14.4
Low Income - Population	31.9	79	12.0
Low Income - Households	32.4	74	11.2