

APPENDIX B

This appendix provides Aerojet's and ERM's Responses to Agency comments on the *Draft Remedial Investigation Report for Selected Soil Sites in Areas 20, 21, and 49* provided in a letter from USEPA dated 11 May 2004. The text of each comment is repeated verbatim in bold italics, followed by the response.

GENERAL COMMENTS

- 1. Soil vapor Volatile Organic Compound ("VOC") concentrations need to be compared to soil vapor screening levels for VOCs. Soil vapor screening levels for VOCs should be derived based on applying an appropriate attenuation factor to the Ambient Air Preliminary Remediation Goals ("PRGs") contained in EPA Region 9 PRGs table (dated October 2002). These screening levels need to be included in each of the RI tables showing VOC results. Concentrations above the respective screening levels need to be identified in the tables and figures. The text needs to be modified to discuss sample results that exceed VOC screening levels.*

Since the 2002 PRGs table were developed, there have been a few changes to the Ambient Air PRGs. Please note the following changes to chemical-specific PRGs and incorporate these changes as appropriate.

Tetrachloroethylene ("PCE") 0.32 ug/m³

Ethylbenzene 1,100 ug/m³

Trichloroethylene ("TCE") 0.96 ug/m³

The Ambient Air PRGs for TCE remains controversial. For this Remediation Investigation/Feasibility Study ("RI/FS") Report, the EPA proposes that Aerojet use the Cal-modified PRG for TCE. This value corresponds to 1×10^{-6} residential risk level using the Cal-EPA toxicity value and approximately a 5×10^{-5} residential risk level using the "provisional" toxicity value from EPA's external draft TCE Health Risk Assessment (2001).

As agreed upon with the agencies in a meeting on 9 June 2004, soil vapor screening levels were derived using ambient air PRGs with an attenuation factor of 2,000. With the exception of TCE, screening levels

were calculated by applying the AF of 2,000 to the ambient air PRGs published in the USEPA Region IX table dated October 2004. The October 2004 PRGs table includes the changes in the ambient air PRGs for PCE and ethylbenzene noted in the agency's comment above. As proposed by the USEPA, the screening level for TCE was calculated using the California modified ambient air PRG.

The development of the screening levels for VOCs and rationale for use of the attenuation factor of 2,000 is presented in Part 2 of the PGOU RI/FS Report. Additionally, the screening levels have been incorporated into the report tables and VOCs detected above their respective screening levels are shown on figures and discussed in the report text.

- 2. Soil vapor concentrations were detected at a depth of 5 feet that are similar or greater than concentrations detected at 10 feet at several locations. During the human health baseline risk assessment, the Johnson & Ettinger Model should be used to assess the data at both depths to confirm that the most conservative data is evaluated.*

The most conservative data was used in the human health risk assessment.

- 3. At several sites (e.g., 10D, 11D, C4, C15), the extent of concentrations exceeding residential screening levels is not clearly defined but the RI states the area is sufficiently characterized. Will the risk assessment be based on the highest concentration detected in each area? How will remedial costs be estimated if the nature and extent of contamination is not established? Justification for reaching this conclusion needs to be provided.*

The risk assessment used the maximum concentration of each VOC detected in the upper 10 feet of soil in each area. The extent of VOCs in all areas was characterized to risk based screening levels developed for the planned land use scenario (i.e., residential or commercial). Specifically, at sites 10D and 11D the planned land use is commercial, and characterization to risk-based screening levels based on a commercial land use scenario was achieved in those areas.

- 4. According to Tables 5-18 and 5-29, flux chamber samples were collected at 33D, 36D, 37D, 39D and C14 but the results are not discussed in the text or summarized on tables. This information needs to be included in the RI report if flux chamber samples were collected.*

The flux chamber data is provided and discussed in Appendix G of this report. Based on USEPA comments indicating they do not consider flux chamber data useful in evaluating vapor intrusion into indoor air, this data was not used in the RI/FS.

5. *Without VOC data for soil, how will potential risks associated with ingestion and dermal contact (primarily ingestion of VOCs) be evaluated during the baseline risk assessment? Residual VOC concentrations that may be present in on-site surface and/or subsurface soil may pose a threat via direct contact exposure routes. Although it is possible to convert soil gas data to soil concentrations using the Johnson & Ettinger model equations, this would only estimate soil concentrations for the 5 and 10 foot depth intervals (assuming that the measured soil gas represents a source). This would mostly apply to future scenario where site grading is assumed. To evaluate the current exposure scenario, surface soil samples should be collected for analysis from areas with potentially VOC-impacted surface soil.*

In areas where incidental ingestion and dermal contact with soil represent complete exposure pathways, exposures were estimated following USEPA guidance (USEPA, 1989, Risk Assessment Guidance for Superfund/Part A; USEPA Region 9, 2002, Preliminary Remediation Goals). However, as discussed with the agencies during the meeting on 9 June 2004, ingestion and dermal contact with VOCs in soil in many parts of the site are not considered complete exposure pathways due to the coarse-grained lithology of the surface and near surface soil and the semi-arid climate. These factors prevent the persistence of VOCs in surface and near-surface soils, therefore making exposure via ingestion and dermal contact with soil unlikely. Additionally, because the coarse surface soils do not provide favorable conditions for vegetation, redevelopment activities will likely include the placement of topsoil, which would further limit any future exposure via ingestion or dermal contact. Discussion of these conditions is included in the risk assessment as part of the uncertainty analysis.

6. *Constituent concentrations detected above the screening level need to be clearly identified on all figures where laboratory results are posted.*

The figures presented in this report identify VOCs above their respective screening levels.

- 7. In many instances in the Draft RI Report the chemicals Bis (2-ethylhexyl) phthalate and di-n-butyl phthalate are stated to be common analytical and sampling contaminants. Those two chemicals should be considered pollutants at the site unless it is demonstrated that they were found during analysis of samples due to contamination of the sample by the analytical and sampling procedures, and/or spatial distribution of the samples in which the chemicals were found.*

Although bis(2-ethyl hexyl)phthalate and di-n-butyl phthalate are common laboratory contaminants and have been shown to be such at the Aerojet site (G. Clark, Aerojet Memo, 1993), they were not eliminated from further evaluation in the risk assessment.

SPECIFIC COMMENTS

- 1. Section 3.2.1.1, page 3-2. EPA Methods 8010 and 8020 are referenced and were implemented. These methods were deleted from USEPA Test Methods for Evaluating Hazardous Waste, Final Update III, 12/96.*

Noted. Groundwater samples were analyzed for VOCs using the test method having the lowest practical quantitation and method detection limits provided in the latest, approved Quality Assurance Project Plan for the Aerojet Superfund Site (25 September 2002).

The Draft RI Workplan (ERM, 24 January 2003) proposed the analysis of groundwater samples using USEPA Method 8260. The analytical method was changed to USEPA Methods 8010/8020 in response to Specific Comment #41 in the Agency's comments on the Workplan provided in a letter dated 25 March 2003.

- 2. Section 3.2.1.6, page 3-3. Revise the text to clarify whether Polychlorinated Biphenyl ("PCB") congener or PCB as Aroclor analysis was performed.*

PCB as aroclor analysis was performed. The text was revised accordingly.

- 3. Section 3.2.2.3, page 3-4. Standard protocol for decontamination of sampling equipment for organic compounds, particularly PCB, includes a solvent rinse. Was this performed?*

Decontamination of sampling equipment used for the collection of soil samples for PCBs included a rinse with isopropanol. The text was revised accordingly.

4. *Section 3.2.3.2, page 3-6, first paragraph. There is no mention of the guidance used to evaluate and validate metals data; i.e., Contract Laboratory Program National Function Guidelines for Inorganic Data Review (USEPA 1996). Was this guidance followed?*

Yes. The cover page of the data validation reports for metals provided in Appendix D provides a list of the guidance documents used to validate the data. The cover page indicates that the document followed for validation of metals data was *Contract Laboratory Program National Function Guidelines for Inorganic Data Review* (USEPA, 1994).

5. *Section 3.2.3.2, page 3-6, second paragraph. It is not clear what level of review was applied. This paragraph implies that all data was reviewed under Level III or Level IV guidelines, then goes on to state that an additional 20 percent of all analytical data were reviewed under Level III guidelines. Typically, a percentage of all data would be reviewed under the most rigorous Level IV guidelines. The text needs to be clarified.*

The text was revised to clarify the number and percentage of data validated under Level III and Level IV guidelines. Tables listing the samples and level of validation are included as Appendix C to this report.

6. *Section 3.2.3.2, page 3-6, last paragraph. Appendix C only includes data validation level information associated with soil vapor samples. The appendix should include this information for all samples.*

The data validation levels were added to the tables provided in Appendix C of this report.

7. *Section 3.2.3.2, page 3-8, second paragraph, SVOCs. The term "laboratory detection limits" is undefined and inconsistent with other limits described throughout the text. The text needs to be revised to clarify this term.*

The text was revised to clarify this term.

8. *Section 3.2.3.2, page 3-8, sixth paragraph, TPH-D. The units reported for TPH-D are incorrect, and should be “mg/L”.*

The units were changed.

9. *Section 3.2.3.2, page 3-9, first paragraph. No mention is made of equipment blank sample collection associated with the sediment and blank samples collected for PCB analysis. Please clarify.*

Only two PCB samples were collected using equipment (shovel). The remaining samples were collected by hand using gloves changed between each sampling location.

10. *Section 3.3.1, page 3-9. This section indicates that ERM developed risk-based screening levels for VOCs during preparation of the approved Work Plan. However, there is no information in the RI related to what these screening levels are based on (e.g., indoor or outdoor air, residential or industrial exposure assumptions). Also, the text needs to indicate what target risk levels were used to derive these values. Also explain that the VOC screening levels apply to the indoor air scenario. A table in the RI is needed that presents the soil vapor screening levels for VOCs, as provided in Table 3-2 of ERM's response (dated 16 June 2003) to agency comments on the work plan. This table should be expanded to include all VOCs detected during the RI.*

The text was revised to include information regarding the development of screening levels for all VOCs.

11. *Section 3.3.1, page 3-9. This section indicates that all VOCs are considered to be constituents of concern. Can it be assumed that no VOCs will be screened out of the risk assessment?*

All VOCs detected during the RI were considered in the risk assessment. As part of the risk assessment, VOCs were screened using the generic screening levels presented in Table 2c of the Vapor Intrusion Guidance (USEPA, 2002). Specifically, on-site soil vapor data was compared with 10 percent of the “Target Shallow Soil Gas Concentration Corresponding to Target Indoor Air Concentration” value presented in the guidance. Ten percent of the generic screening level was utilized to account for potential cumulative exposures to multiple constituents. If no generic screening level for a specific

chemical is included in Table 2c of Vapor Intrusion Guidance, 10 percent of the USEPA Region IX ambient air PRG was used for screening.

- 12. Section 3.3.2, page 3-10, second bullet. *The California Leaking Underground Fuel Tanks (“LUFT”) values are not standards, but guidance. Site-specific values for the protection of water quality due to potential impacts from total petroleum hydrocarbons should be developed. The protective values are dependent on soil types and depth to groundwater, among other things. A 1,000 mg/kg Total Petroleum Hydrocarbons (“TPH”) at the water table would likely not be acceptable. This comment also applies to many other sections of the report where TPH concentrations are compared to the values found in the LUFT guidance.***

Understood. The potential threat to groundwater posed by TPH as diesel was evaluated using the lowest allowable concentration of 100 mg/kg presented in the LUFT guidance. The 100 mg/kg is the highest TPH-diesel concentration that can be left in place assuming the most conservative site conditions listed in Table 2-1 of the LUFT guidance. The maximum TPH-diesel concentration detected in the RI samples was 30 mg/kg at 40 feet, seven feet above groundwater.

- 13. Section 3.3.2, page 3-10. *This section indicates that organics were compared to industrial standards and metals were compared to residential standards. All data groups need to be compared to both residential and industrial cleanup standards. Residential cleanup levels need to be used in the RI to define the nature and extent of contamination. Industrial levels could only be used with the implementation of Institutional Controls (“ICs”). If Aerojet is proposing the consideration of restricted use, the ICs need to be specified and the justification provided. DTSC would need to agree to accept the Comprehensive Environmental Response, Compensation, and Liability Act 104(j) provision associated with the IC for a land use covenant.***

Compounds were compared to residential or industrial PRGs depending on the intended future land use for the site. Aerojet understands that the restriction of land to industrial/commercial development would require the implementation of institutional controls/deed restrictions.

14. *Section 3.3.2, page 3-10. Specify in the text what target risk levels were used for the Preliminary Remediation Goals (“PRGs”) [i.e., 1E-06 or HQ of 1].*

The target risk level used for the PRGs was 1E-06 for carcinogenic constituents. For noncarcinogenic constituents, a target hazard quotient of 1 was used to derive PRGs.

15. *Section 3.3.2, page 3-10. Soil data needs to be compared to groundwater protection standards in addition to the risk-based PRGs.*

Soil concentrations were evaluated with respect to their potential to impact surface water and groundwater.

16. *Section 3.3.2, page 3-10, first bullet. This bullet states non-VOCs except TPH were compared to industrial PRGs. These data also need to be evaluated with respect to residential soil PRGs as presented in Section 3.6.2 of the work plan.*

Compounds were compared to residential or industrial PRGs, depending on the intended future land use for the site.

17. *Section 3.3.2, page 3-10, third bullet. What is the intended use of background data? If the background samples associated with the Borch 1994 event will be combined with the background samples identified on Figure 3-1, the Borch sample locations need to be shown on a figure and the results tabulated since the report is not part of the document. The RI report needs to document how the average background concentrations were calculated. Background samples must be shown to be comparable to site samples if the two populations are to be compared. The background samples should have been collected from a similar soil type and depth in comparison to the site samples. Also, the analytical methods used to evaluate background soil samples should be the same as those used for site samples. The RI report also needs to document how many background samples were collected and if there is a sufficient amount of samples to calculate a statistical values such as an upper control limit or upper threshold limit.*

The background samples identified in Figure 3-1 were collected in accordance with RWQCB’s guidance to determine background extract concentrations for use in evaluating potential impacts to groundwater posed by the compounds detected in the ditches at Sites 4D, 5D, 10D, and 11D. The background samples were not intended to replace, or

supplement, the 1994 background study. As per the RWQCB's guidance, a minimum of four background samples were collected from a similar soil type and depth as the site samples and analyzed using the same methods as the site samples.

18. Section 3.3.2, page 3-10, third bullet. This section indicates that the range of arsenic concentrations in soil that correspond to the range of acceptable carcinogenic risk permitted by the USEPA is 0.38 to 38 mg/kg. The range of carcinogenic risk that EPA may consider as acceptable (1×10^{-6} to 1×10^{-4}) is based on cumulative risk. Note that this upper bound risk range is based on cumulative risk, not risk to one chemical such as arsenic. Also, as to not mislead the reader, the above sentence needs to be revised to reflect that EPA may consider cumulative risks less than 1×10^{-4} as unacceptable. The EPA policy set in place for establishing remediation goals based on excess cancer risks follows the Comprehensive Environmental Response, Compensation, and Liability Act National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"). According to the NCP, excess cumulative cancer risks in the range of 1×10^{-6} to 1×10^{-4} may or may not be considered acceptable, depending on site-specific factors such as the potential for exposure, technical limitations of remediation, and data uncertainties. Rather than relying on the arsenic non-cancer endpoint as the PRG for arsenic in soil, the PRG may be based on background. If 22 mg/kg exceeds background, then it should not be used as the PRG for arsenic in soil.

So noted.

19. Section 3.3.3, page 3-10. The number of source samples analyzed for leachable metals is insufficient to determine if source areas are more likely to pose an adverse threat to groundwater quality than background leachate concentrations. Several soil samples contain higher metals concentrations than the seven soil samples from Sites 5D, 10D and 11D where the leachate was analyzed for metals (Table 4-5). The leachate of soil samples from maximally impacted source areas needs to be analyzed and compared to background leachate results.

A WET was performed on those site samples collected during this RI having metals at concentrations above background. Additionally, the background samples and the extracts were analyzed for all metals of potential concern that had been detected above background in previous and recent samples. Several site samples having the

maximum detected concentrations of certain metals were collected prior to 1997 and therefore were not available for a WET.

- 20. Section 4.1.3, page 4-3. Subsection should clarify the criteria used to differentiate perched groundwater from shallow unconfined groundwater.**

The criteria used to differentiate perched from shallow unconfined groundwater were well depth, depth to groundwater, and differences in contaminant concentrations and types. This information was added to the text.

- 21. Section 4.3, page 4-8, fourth paragraph. The location of the 720 mg/kg PCB concentration should be provided in the text and on Figure 4-5.**

The location was provided as requested.

- 22. Section 4.3.2.1, page 4-12. The last paragraph of subsection states “No metals above their average background levels or industrial or residential soil PRGs were detected in the near-surface soil samples collected at locations 11D-SNS03 and 11D-SNS04”. As discussed previously in this subsection, several metals were detected above average background levels and lead was detected above residential PRGs. The last paragraph needs to be revised to clarify this discrepancy.**

Metals were detected above background and PRGs in the surface soil samples collected at locations 11D-SNS03 and 11D-SNS04. However, no metals above average background or PRGs were detected in the near-surface (3 feet below ground surface) at those locations.

- 23. Section 4.3.4.3, page 4-17, second bullet. Although no metals exceed the industrial PRGs, the text needs to clarify that lead concentrations in sample 11D-SNS04 exceed residential PRGs.**

Compound concentrations were compared to residential or industrial PRGs depending on the intended future land use for the site.

24. *Section 4.3.4.3, page 4-17, last paragraph. Due to lead concentrations exceeding the residential PRGs, additional characterization appears to be needed to determine the extent of soil impacted above this screening level.*

The future land use for Site 11D consists of office space. Lead concentrations were below the industrial PRG and therefore, no additional sampling was necessary to characterize the extent of lead.

25. *Section 4.4.4.2, page 4-32, last paragraph. The report states the extent of chemicals in sediment at Site 10D have been sufficiently characterized, but additional sampling is needed to define the extent of PCBs above the residential PRG. While it may be possible that period cleaning of the trench deposited material on the upper bank this is not a certainty. Based on the data shown on Figure 4-5, additional surface samples are needed from the following areas: 1) upgradient of 10D-SNS24; 2) north of 10D-SNS35; 3) south bank of ditch near 10D-SNS24; 4) south of 10D-SNS34; and 5) north of 10D-SNS36. In order to assess the vertical extent of PCB concentrations, samples should be collected at a depth greater than 0.5 feet from three locations with elevated PCB concentrations (i.e., 10D-SNS31, 10D-SNS26 and 10D-SNS34).*

The extent of PCBs in soil at Site 10D have been characterized to the applicable PRG (i.e., PRG based on commercial land use). Additional sampling for PCBs was conducted at Site 10D in July 2004 and is presented in the report.

26. *Section 4.6.3.1, page 4-10, last sentence. The Maximum Contaminant Level for nitrate is 10 mg/L as nitrogen, not 10 µg/L. This comment also applies to the text in the first bullet in Section 4.6.4.2 on page 4-41.*

The units reference was corrected.

27. *Section 4.4.1.2, page 4-43, first bullet. It should be noted that if soil gas samples were collected at less than 5 feet, then the results will be suspect due to the potential for entrainment of ambient air in the sample. This comment applies to all sections that discuss "very shallow soil vapor samples."*

Noted. Soil vapor samples were collected at a minimum depth of 5 feet below ground surface unless probe refusal was encountered.

- 28. Section 4.11, page 4-65, first paragraph. The last sentence states that the results of the Perimeter Groundwater Operable Unit (“PGOU”) RI/FS indicate the need to relocate the facility elsewhere on the Aerojet property. the need for this relocation has nothing to do with the results of the RI/FS. Aerojet is proposing to move the facility for other non-remedy issues and to allow the property to be developed.**

The relocation of the GET D treatment facility is dependent upon a number of factors, including future development plans and the desire to consolidate groundwater treatment facilities to reduce operation and maintenance costs.

- 29. Section 4.12.2.1, Pages 4-67, 4-68 and Table 4-11. The layer designations for wells 38, 108, 279, 3086, 3093, 3096 and 3109 need to be reviewed since the layer designation do not appear to be consistent with PGOU RI/FS. It is understand hydrostratigraphic correlations for the Aerojet site have recently been reevaluated.**

A summary of layer designations to illustrate the nature of the problem in provided below. (Summary not provided)

The layer designations for the wells included in the Draft RI Report reflected the most recent changes in the hydrostratigraphic correlations.

- 30. Section 4.12.3.1, page 4-70, and Section 4.12.3.2, page 4-71. Figures presenting the groundwater contamination in each of the layers for Areas 20 and 21 need to be provided to substantiate the information presented in these sections. The figures would use information collected during the recent RI work, as well as, past data.**

Figures showing the extent of groundwater contamination in each of the layers beneath Areas 20, 21, and 49 are included in Part 1 of this report.

- 31. Section 5.1.3, page 5-2. This subsection should clarify the criteria used to differentiate perched groundwater from shallow unconfined groundwater.**

See response to Specific Comment #20 above.

32. *Section 5.3.1.1, page 5-9, first paragraph. It is stated in this paragraph that the highest total VOC concentration found was 12,700 µg/L. The highest value listed in the first bullet on page 5-10, and on Figure 5-4 is 47,300 µg/L.*

Section 5.3.1.1 summarizes the results of two previous investigations conducted at Sites 32D, 34D, 35D, and 38D: the Phase 1 RI/FS soil vapor pilot study conducted in July 1990 and the Stage 1 RI performed in 1992. The highest total VOC concentrations detected in the soil vapor samples collected as part of the RI/FS soil vapor pilot study in July 1990 was 12,700 µg/L. The highest total VOC concentration detected in the soil vapor samples collected during the Stage 1 RI was 47,300 µg/L.

33. *Section 5.3.5.1, page 5-24, last bullet. The information from this hydropunch should be Figure 5-14.*

Figure 5-14 presents the results of the most recent groundwater monitoring and the data most likely to be representative of current conditions. It would not be consistent to include screening-level groundwater data from 1992 with the monitoring well groundwater data from 2003 on Figure 5-14.

34. *Section 5.3.6.1, page 5-27. The last paragraph of this subsection states that the extent of VOCs in the central portion of Area 49 has been sufficiently characterized. At numerous sample locations (see Figures 5-8, 5-9 and 5-10) TCE soil vapor concentrations exceed the residential carcinogenic screening level (0.27 ug/L) as provided in Table 3-2 of ERM's response (dated 16 June 2003) to agency comments on the work plan. Additional sampling appears to be needed to the north, south and west of the central portion of Area 49 to adequately characterize VOC concentrations.*

As discussed under General Comment #1, screening levels for VOCs have been developed using an approach proposed by the USEPA. VOCs in soil vapor above their respective screening levels are presented in tables and figures and discussed in this report.

35. *Section 5.5.4.1, page 5-47 and Section 5.5.4.2, page 5-48. The last paragraph of these subsections state that the extent of chemical constituents in soil at Site 36D has been sufficiently characterized. Figures 5-8, 5-9 and 5-10 indicate that TCE soil vapor concentrations exceed the residential carcinogenic screening level (0.27 ug/L) and at a*

minimum additional sampling appears to be needed to the west of the former sump and underground storage tank.

See response to Specific Comment #34.

36. Section 5.12.4.1, page 5-79, last paragraph. The report states the extent of chemicals in soil at Site C15 have been sufficiently characterized, but based on the data shown on Figure 5-16 additional sampling is needed to define the extent of chromium above the residential PRG in the vicinity of C15-SS06. A minimum of three sample locations (one south and two north of C15-SS06) are needed with samples collected at 0.5 feet and greater than 0.5 feet to define the vertical and lateral extent.

Additional soil samples were collected at Site C15 in July 2004 to evaluate the extent of chromium. The results of that sampling is presented in this report.

37. Section 5.13.4.1, page 5-83. The last paragraph of this subsection states the extent of chemical constituent in soil at Site C4 have been sufficiently characterized, but additional sampling is needed to define the extent of lead above the residential PRG. Based on the data shown on Figure 5-17, additional surface samples are needed from the following areas: 1) northwest of C4-SNS07; and 2) northeast of 10D-SNS35. In order to assess the vertical extent of lead concentrations, samples need to be collected to a depth greater than 0.5 feet from at least two locations with elevated lead concentrations (i.e.; C4-SNS02 and C4-SNS07).

The reference to sample location 10D-SNS35 appears to be an error. Additional sampling was conducted at Site C4 in July 2004 to further characterize the extent and concentrations of lead. The results of that sampling is presented in this Report.

38. Table 4-11. The total depth of well 108 needs to be included on the table.

The total depth of Well 108 is 245 feet with a screened interval between 195 and 230 feet.

39. Table 5-30. The chromium detection of 880J for sample C15-SS06 should be shaded vs. boxed since it exceeds the industrial PRG.

The box was shaded.