Ronald B. Clary
General Manager
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SCE&G®
A SCANA COMPANY

February 23, 2009
NND-09-0033

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

ATTN: Document Control Desk

Subject: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 Combined License Application (COLA) - Docket Numbers 52-027 and 52-028 Response to NRC Request for Additional Information (RAI) Letter No. 018

Reference: Letter from Ravindra G. Joshi (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 018 Related to SRP Section 11.03 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated January 22, 2009.

The enclosure to this letter provides the South Carolina Electric & Gas Company (SCE&G) response to the RAI items included in the above referenced letter. The enclosure also identifies any associated changes that will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA.

Should you have any questions, please contact Mr. Al Paglia by telephone at (803) 345-4191, or by email at apaglia@scana.com.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 23rd day of February, 2009.

Sincerely,

Ronald B Clary

Ronald B. Clary
General Manager
New Nuclear Deployment

AMM/RBC/am

Enclosure

D083
NRO

c (with attachment):

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NRC RAI Letter No. 018 Dated January 22, 2009

SRP Section: 11.03 – Gaseous Waste Management System

Question from Health Physics Branch (CHPB)

NRC RAI Number: 11.03-1

FSAR Sections 11.3.3.4.2 and 11.3.5.1 (including VCS COL Item 11.3-1) reference draft NEI Template 07-11 as the basis of the cost-benefit analysis for justifying, in part, the design of the Gaseous Waste Management System (GWMS). The NEI template proposed a bounding envelope of population doses associated with gaseous effluent releases, which, if met, would demonstrate compliance with ALARA cost-benefit requirements of Section II.D of Appendix I to Part 50. However, NEI Template 07-11 was withdrawn from further consideration by NEI. Accordingly, please explain how the applicant intends to develop a plant and site-specific cost-benefit analysis demonstrating compliance with Section II.D of Appendix I to Part 50 with respect to the GWMS, and provide sufficient information for the staff to evaluate the bases and assumptions used in the analysis against the applicable NRC regulations and guidance.

VCSNS RESPONSE:

A plant specific cost-benefit analysis has been developed demonstrating compliance with Section II.D of Appendix I to Part 50 with respect to the GWMS. This cost-benefit analysis replaces use of NEI 07-11; thus, reference to NEI 07-11 will be removed from the FSAR. The total annual costs of the gaseous radwaste system augments listed in Regulatory Guide 1.110, Revision 0, were developed using the methodology and parameters provided in the regulatory guide. Conservative values were chosen for parameters not specified in the regulatory guide. The following variable parameters were used:

- Capital Recovery Factor (CRF) – This factor is taken from Table A-6 of Regulatory Guide 1.110 and reflects the cost of money for capital expenditures. A cost-of-money value of 7% per year is assumed in this analysis, consistent with the "Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission" (NUREG/BR-0058). A CRF of 0.0806 was obtained from Table A-6.

- Indirect Cost Factor (ICF) – This factor takes into account whether the radwaste system is unitized or shared (in the case of a multi-unit site) and is taken from Table A-5 of Regulatory Guide 1.110. It is assumed that the radwaste system for this analysis is a unitized system at a 2-unit site, which equals an ICF of 1.625.

- Labor Cost Correction Factor (LCCF) – This factor takes into account the differences in relative labor costs between geographical regions and is taken from Table A-4 of Regulatory Guide 1.110. A LCCF of 1.0 (the lowest value) is assumed in this analysis.

The lowest-cost option for gaseous radwaste treatment system augments is the Steam Generator Flash Tank Vent to Main Condenser at $6,320 per year per unit for a two unit PWR, which yields a threshold value of 6.32 person-rem ($6,320/$1,000) total body or thyroid dose from gaseous effluents.

The population doses, 2.9 person-rem total body per reactor per year and 6.7 person-rem thyroid per reactor per year, are given in FSAR Section 11.3.3.4.2*. As discussed above, the lowest cost gaseous radwaste system augment is $6,320. Assuming 100% efficiency of this augment, the minimum possible cost per person-rem is determined by dividing the cost of the augment by the population dose. This yields $2,180 per person-rem total body ($6,320/2.9 person-rem) and $940 per person-rem thyroid ($6,320/6.7 person-rem). While the costs per person-rem reduction exceed the $1,000 per person-rem criterion considering the total body dose, the costs considering the thyroid dose are below the $1,000 per person-rem and further evaluation is required.

Since the estimated thyroid dose of 6.7 person-rem exceeds the 6.32 person-rem threshold value, those system augments listed in Regulatory Guide 1.110 with a Total Annual Cost less than $6,700 are evaluated to determine if they would be cost beneficial. The only system augment with a Total Annual Cost less than $6,700 is the lowest-cost option for gaseous radwaste treatment system augments mentioned above, the Steam Generator Flash Tank Vent to Main Condenser. Addition of this augment presumes that the design already includes a steam generator flash tank. This augment only considers the installation of vent piping and instrumentation from the tank to the main condenser. However, the AP1000 design does not include a steam generator flash tank. As shown in DCD Figure 10.4.8-1, the AP1000 design includes steam generator piping blowdown heat exchangers that provide cooling of the blowdown fluid and prevent flashing prior to blowdown entering the main condenser. Adding the installation of a flash tank to this augment is estimated to cause the estimated Total Annual Cost to increase significantly (greater than $380) and would result in the conclusion that this augment is not cost beneficial.

Nevertheless, even if a vent line similar to the one described as the system augment is considered, it would not mitigate the dose contribution from noble gases. Of the 6.7 person-rem thyroid dose given in FSAR Section 11.3.3.4.2, 1.3 person-rem is due to noble gases. Assuming this system augment completely eliminates the dose of 5.4 person-rem thyroid due to isotopes other than noble gases, the cost of the thyroid dose reduction would be $6,320 / 5.4 person-rem thyroid, or $1,170 per person-rem thyroid. This cost per person-rem reduction exceeds the $1,000 per person-rem criterion prescribed in Appendix I to 10 CFR Part 50 and the system augment is therefore not cost beneficial. Realistic efficiencies would increase the cost per person-rem further above the $1,000 criterion.

FSAR Section 11.3 is being revised to reflect the response to this RAI. The associated application revisions include items that are both PLANT-SPECIFIC and items that are expected to be STANDARD as shown in the COLA Revisions section below. The portion of this response which describes the methodology and parameters used to develop the total annual costs of the radwaste system augments is expected to be

STANDARD and has been adapted from the TVA response to NRC Request for Additional Information Letter No. 033 Related to SRP Section 11.03 for the Bellefonte Units 3 and 4 Combined License Application (Reference). The remaining portions are PLANT-SPECIFIC.

* It should be noted that the site-specific X/Q values for releases due to normal operation are being revised to reflect the meteorological data from the new met tower constructed for Units 2 and 3. Consequently the population doses are being revised in FSAR Table 11.3-205 to reflect a calculated total body annual dose of 2.9 person-rem and a thyroid dose of 6.7 person-rem. A full description and incorporation of the data associated with the new tower will be provided in a future revision of the COLA.

Reference for the Response:

Letter from J. A. Bailey (TVA) to NRC, "Bellefonte Combined License Application - Response to Request for Additional Information - Gaseous Waste Management Systems," dated August 1, 2008, (ML082250070).

This response is PLANT SPECIFIC.

ASSOCIATED VCSNS COLA REVISIONS:

1. VCSNS COLA Part 2, FSAR Section 11.3.3.4.2 will be will be revised to delete the next to the last paragraph and the second sentence of the last paragraph and to add new Subsections 11.3.3.4.3 and 11.3.3.4.4 as shown below:

~~This section adopts NEI 07-11 (Reference 201) which is currently under review by the NRC staff. The application of the methodology of NEI 07-11 satisfies the cost-benefit analysis requirements of 10 CFR Part 50, Appendix I, Section II.D. The augments provided in NEI 07-11 were reviewed and were found not to be cost beneficial due to the low VCSNS population doses.~~

Table 11.3-205 shows that the total body and thyroid population doses per unit are approximately ~~1.3~~ 2.9 and ~~3.6~~ 6.7 person-rem per unit, respectively. ~~The population doses per unit are below the NEI guideline value of 6.32 person-rem for whole body or thyroid from gaseous effluents.~~

11.3.3.4.3 Gaseous Radwaste Cost-Benefit Analysis Methodology

STD COL 11.3-1 The guidance for performing cost-benefit analysis for the gaseous radwaste system is similar to that used and described for the liquid radwaste system in Section 11.2. The gaseous radwaste treatment system augments annual costs were determined and the lowest annual cost considered a threshold value. The lowest-cost option for gaseous radwaste treatment system augments is the Steam Generator Flash Tank

Vent to Main Condenser at $6,320 per year, which yields a threshold value of 6.32 person-rem total body or thyroid from gaseous effluents.

For AP1000 sites with population dose estimates less than 6.32 person-rem total body or thyroid dose from gaseous effluents, no further cost-benefit analysis is needed to demonstrate compliance with 10 CFR 50, Appendix I, Section II.D.

11.3.3.4.4 Gaseous Radwaste Cost-Benefit Analysis

VCS COL 11.3-1

As discussed in Section 11.3.3.4.3, the lowest cost gaseous radwaste system augment is $6,320. Assuming 100 percent efficiency of this augment, the minimum possible cost per person-rem is determined by dividing the cost of the augment by the population dose. This is $2,180 per person-rem total body ($6,320/2.9 person-rem) and $940 per person-rem thyroid ($6,320/6.7 person-rem thyroid). While the costs per person-rem total body reduction exceed the $1,000 per person-rem criterion, the costs per person-rem thyroid dose are below the $1,000 per person-rem and further evaluation is required.

Since the estimated thyroid dose of 6.7 person-rem exceeds the 6.32 person-rem threshold value, those system augments listed in Regulatory Guide 1.110 with a Total Annual Cost less than $6,700 are evaluated to determine if they would be cost beneficial. The only system augment with a Total Annual Cost less than $6,700 is the lowest-cost option for gaseous radwaste treatment system augments, the Steam Generator Flash Tank Vent to Main Condenser. It is noted that this augment would not mitigate the dose contribution from noble gases. Of the 6.7 person-rem thyroid dose given in FSAR Section 11.3.3.4.2, 1.3 person-rem is due to noble gases. Assuming this system augment completely eliminates the dose of the remaining 5.4 person-rem thyroid due to isotopes other than noble gases, the cost of the thyroid dose reduction would be $6,320 / 5.4 person-rem thyroid, or $1,170 per person-rem thyroid. This cost per person- rem reduction exceeds the $1,000 per person-rem criterion prescribed in Appendix I to 10 CFR Part 50 and this system augment is therefore not cost beneficial.

Due to the low VCSNS population doses, there are no other system augments from those listed in Regulatory Guide 1.110 which would be considered cost beneficial.

2. COLA Part 2, FSAR, Chapter 11, Subsection 11.3.5.1, will be revised as shown below:

STD COL 11.3-1 This COL Item is addressed in Subsection 11.3.3.4.3.

VCS COL 11.3-1 This COL Item is addressed in Subsections 11.3.3.4, 11.3.3.4.1, ~~and~~ 11.3.3.4.2, and 11.3.3.4.4.

3. COLA Part 2, FSAR, Chapter 11, Subsection 11.3.6, Reference 201, reference to NEI 07-11, will be deleted as shown below:

   201. ~~NEI 07-11, "Generic Template Guidance for Cost-Benefit Analysis for Radwaste Systems for Light-Water-Cooled Nuclear Power Reactors," Revision 0, September 2007.~~ Deleted

ASSOCIATED ATTACHMENTS:

None

NRC RAI Letter No. 018 Dated January 22, 2009

SRP Section: 11.03 – Gaseous Waste Management System

Question from Health Physics Branch (CHPB)

NRC RAI Number: 11.03-2

Please provide detailed information to enable the staff to validate and verify the estimated doses in FSAR section 11.3.3.4 with respect to the dose objectives of Appendix I to 10 CFR Part 50 and the dose limits in 10 CFR 20.1301(e); please revise the FSAR to include this information, or justify its exclusion. The information should include the following:

• a complete description of how the applicant derived all the values listed in Table 11.3-201, including all assumptions made

• citations to any reference material used (for documents not publicly available please provide a copy for staff's use)

• detailed breakdown of individual doses by pathway and organ

• detailed breakdown of population doses by pathway and organ

VCSNS RESPONSE:

Regulatory Guide 1.206, Revision 0, and Standard Review Plan 11.3, Revision 3, require the parameters used to determine estimated doses from the gaseous effluent system to be provided in the FSAR, but neither requires the FSAR to provide a detailed basis for each parameter. The existing footnote to Table 11.3-201 already provides the bases for the parameters used to calculate gaseous effluent doses. Although it is not being proposed to modify this FSAR table to include more detail, further information on Table 11.3-201 data is provided below, along with any applicable references.

The bases for the parameters in Table 11.3-201 are as follows:

- Number of source terms – One set of source terms is used in GASPAR II.
- Read met data from XOQDOQ-generated file – This file contains the dispersion data with 50 miles and at sensitive individual receptors.
- Distance from site to NE corner of the U.S. – This input is used by GASPAR II only for National Environmental Policy Act (NEPA) dose calculations (Reference 1, Page 2.8), which is not reported in this COLA.

- Source term – DCD Table 11.3-3 shows the gaseous effluent activities by isotope.

- Population data – FSAR Table 11.3-202 shows the 50-mile population distribution in 2060 by direction and distance.

- Fraction of the year leafy vegetables are grown – Based on the guidance in the GASPAR II manual, leafy vegetables are grown seven months per year in South Carolina (Reference 1, Page 2.8). Dividing 7 by 12 yields 0.583.

- Fraction of the year milk cows are on pasture – Based on the guidance in the GASPAR II manual, milk cows are on pasture nine months per year in South Carolina (Reference 1, Page 2.8). Dividing 9 by 12 yields 0.75.

- Fraction of maximally exposed individual's vegetable intake from own garden – The default value of 0.76 is used from GASPAR II manual (Reference 1, Page 2.9). This is from Regulatory Guide 1.109, Table E-15.

- Fraction of milk-cow feed intake from pasture while on pasture – A conservative value of 1 is assumed.

- Fraction of the year goats are on pasture – Based on the guidance in the GASPAR II manual, goats are on pasture ten months per year in South Carolina (Reference 1, Page 2.8). Dividing 10 by 12 yields 0.83.

- Fraction of goat feed intake from pasture while on pasture – A conservative value of 1 is assumed.

- Fraction of the year beef cattle are on pasture – Based on the guidance in the GASPAR II manual, beef cattle are on pasture nine months per year in South Carolina (Reference 1, Page 2.8). Dividing 9 by 12 yields 0.75.

- Fraction of beef-cattle feed intake from pasture while on pasture – A conservative value of 1 is assumed.

- Total vegetable production rate for the 50-mile area – This is the sum of vegetables and leafy vegetables production from FSAR Table 11.2-202. The response to VCSNS RAI 11.02-3 explains how this value was calculated.

- Total milk production rate for the 50-mile area – This is obtained from FSAR Table 11.2-202. The response to VCSNS RAI 11.02-3 explains how this value was calculated.

- Total meat production rate for the 50-mile area – This is obtained from FSAR Table 11.2-202. The response to VCSNS RAI 11.02-3 explains how this value was calculated.

- Special location data – FSAR Table 2.3-225 shows the locations and dispersion data for the exclusion area boundary and the nearest residence, meat animal, milk animal, and vegetable garden. Since the application was originally submitted, the dispersion factors have been revised slightly to reflect meteorological data collected at the new tower for Units 2 and 3 in 2007. Based on the new meteorological data, the atmospheric dispersion and ground deposition factors have been revised. Note that meat animal, milk animal, and vegetable garden actually have equal or lower dispersion values but the residence values are conservatively used for all four receptors. Doses are calculated using the atmospheric dispersion and ground deposition factors shown in the following table.

Receptor	Direction from Site	Distance (mi)	Atmospheric Dispersion Factor (sec/m^3)			Ground Deposition (m^{-2})
			Undecayed, Undepleted	2.26 Days Decayed, Undepleted	8 Days Decayed, Depleted	
EAB	SE	0.50	6.0E-06	6.0E-06	5.5E-06	1.7E-08
Residence, Meat Animal, Milk Animal, Vegetable Garden	SE	1.68	9.0E-07	8.9E-07	7.5E-07	3.4E-09

FSAR Tables 11.3-203, 11.3-204, and 11.3-205 will be revised in a future COLA revision to show a detailed breakdown of the calculated individual and population doses by pathway and organs, as shown in the COLA Revisions section below.

References for the Response:

1. NUREG/CR-4653, *GASPAR II – Technical Reference and User Guide*, Prepared for the U. S. Nuclear Regulatory Commission (NRC) by Pacific Northwest Laboratory, March 1987.

This response is PLANT SPECIFIC.

ASSOCIATED VCSNS COLA REVISIONS:

COLA Part 2, FSAR Chapter 11, Tables 11.3-203, 11.3-204, and 11.3-205 will be revised in a future COLA revision as shown on the attached proposed tables.

Additionally, Chapter 2 will be revised to reflect the updated atmospheric dispersion and ground deposition factors, as shown above.

ASSOCIATED ATTACHMENTS:

See proposed Tables 11.3-203, 11.3-204 and 11.3-205.

Table 11.3-203

Annual Individual Doses from Gaseous Effluents (per Unit)

Pathway	Age Group	Nearest Site Boundary (0.50 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Plume	All	4.5E-01	4.5E-01	4.5E-01	4.5E-01	4.5E-01	4.5E-01	4.8E-01	2.3E+00
Ground	All	1.5E-01	1.5E-01	1.5E-01	1.5E-01	1.5E-01	1.5E-01	1.5E-01	1.8E-01
Inhalation	Adult	4.9E-02	5.0E-02	7.8E-03	5.1E-02	5.1E-02	4.7E-01	6.4E-02	4.8E-02
	Teen	5.0E-02	5.0E-02	9.5E-03	5.2E-02	5.3E-02	5.8E-01	7.3E-02	4.8E-02
	Child	4.4E-02	4.4E-02	1.2E-02	4.6E-02	4.7E-02	6.8E-01	6.3E-02	4.3E-02
	Infant	2.6E-02	2.5E-02	5.8E-03	2.8E-02	2.8E-02	6.1E-01	3.9E-02	2.5E-02

Pathway	Age Group	Nearest Residence (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Plume	All	6.0E-02	6.0E-02	6.0E-02	6.0E-02	6.0E-02	6.0E-02	6.5E-02	3.3E-01
Ground	All	3.0E-02	3.0E-02	3.0E-02	3.0E-02	3.0E-02	3.0E-02	3.0E-02	3.5E-02
Inhalation	Adult	7.4E-03	7.5E-03	1.1E-03	7.5E-03	7.7E-03	6.6E-02	9.4E-03	7.2E-03
	Teen	7.5E-03	7.5E-03	1.3E-03	7.7E-03	7.9E-03	8.3E-02	1.1E-02	7.2E-03
	Child	6.6E-03	6.5E-03	1.6E-03	6.9E-03	7.0E-03	9.6E-02	9.2E-03	6.4E-03
	Infant	3.8E-03	3.7E-03	8.0E-04	4.1E-03	4.1E-03	8.6E-02	5.6E-03	3.7E-03

Pathway	Age Group	Nearest Garden (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Vegetable	Adult	5.6E-02	5.7E-02	2.9E-01	5.6E-02	5.3E-02	6.6E-01	4.8E-02	4.8E-02
	Teen	8.3E-02	8.4E-02	4.4E-01	8.6E-02	8.1E-02	8.9E-01	7.5E-02	7.3E-02
	Child	1.8E-01	1.7E-01	1.0E+00	1.9E-01	1.8E-01	1.7E+00	1.7E-01	1.7E-01

Pathway	Age Group	Nearest Meat Animal (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Meat	Adult	1.7E-02	2.0E-02	7.2E-02	1.7E-02	1.6E-02	4.0E-02	1.6E-02	1.6E-02
	Teen	1.3E-02	1.5E-02	6.1E-02	1.4E-02	1.3E-02	3.0E-02	1.3E-02	1.3E-02
	Child	2.4E-02	2.5E-02	1.1E-01	2.4E-02	2.4E-02	5.0E-02	2.4E-02	2.4E-02

Table 11.3-203

Annual Individual Doses from Gaseous Effluents (per Unit)

(Continued)

Pathway	Age Group	Nearest Milk Cow (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Milk	Adult	2.5E-02	2.1E-02	8.6E-02	2.7E-02	2.5E-02	7.0E-01	2.0E-02	2.0E-02
	Teen	4.0E-02	3.6E-02	1.6E-01	4.6E-02	4.3E-02	1.1E+00	3.5E-02	3.4E-02
	Child	8.5E-02	8.0E-02	3.8E-01	1.0E-01	9.4E-02	2.2E+00	8.0E-02	7.8E-02
	Infant	1.7E-01	1.6E-01	7.3E-01	2.0E-01	1.9E-01	5.3E+00	1.6E-01	1.6E-01

Pathway	Age Group	Nearest Milk Goat (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Milk	Adult	3.8E-02	2.6E-02	1.0E-01	4.3E-02	3.4E-02	9.2E-01	2.6E-02	2.4E-02
	Teen	5.4E-02	4.2E-02	1.8E-01	7.2E-02	5.8E-02	1.5E+00	4.3E-02	4.0E-02
	Child	1.0E-01	8.9E-02	4.3E-01	1.4E-01	1.2E-01	2.9E+00	9.3E-02	8.8E-02
	Infant	1.9E-01	1.7E-01	8.1E-01	2.8E-01	2.2E-01	7.0E+00	1.8E-01	1.7E-01

Pathway	Age Group	Maximally Exposed Individual (1.68 mi SE)							
		Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
All	Adult	2.1E-01	2.0E-01	5.5E-01	2.1E-01	2.0E-01	1.8E+00	1.9E-01	4.5E-01
	Teen	2.5E-01	2.4E-01	7.7E-01	2.7E-01	2.5E-01	2.6E+00	2.4E-01	4.9E-01
	Child	4.0E-01	3.8E-01	1.7E+00	4.5E-01	4.2E-01	4.9E+00	3.9E-01	6.4E-01
	Infant	2.8E-01	2.7E-01	9.0E-01	3.8E-01	3.2E-01	7.2E+00	2.8E-01	5.4E-01

Table 11.3-204

Comparison of Gaseous Effluent Doses to 10 CFR 50 Appendix I Limits

		Annual Dose per Unit	
Type of Dose	Location	Unit 2 or 3	Limit
Gaseous Effluent	EAB		
Gamma Air (mrad)		0.74	10
Beta Air (mrad)		3.1	20
Total Body (mrem)		0.60	5
Skin (mrem)		2.4	15
Iodines and Particulates in Gaseous Effluent – Thyroid (mrem)	MEI (1.68 mi SE)	7.2	15

Table 11.3-205

Annual Population Doses from Gaseous Effluents (per Unit)

	Dose (person-rem/yr)							
Pathway	Total Body	GI-Tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Plume	1.3E+00	1.3E+00	1.3E+00	1.3E+00	1.3E+00	1.3E+00	1.5E+00	1.2E+01
Ground	2.1E-01	2.1E-01	2.1E-01	2.1E-01	2.1E-01	2.1E-01	2.1E-01	2.5E-01
Inhalation	3.3E-01	3.4E-01	3.8E-02	3.4E-01	3.5E-01	2.6E+00	4.1E-01	3.3E-01
Vegetable	3.0E-01	3.0E-01	1.4E+00	3.0E-01	2.9E-01	3.1E-01	2.9E-01	2.9E-01
Cow Milk	1.5E-01	1.5E-01	6.2E-01	1.6E-01	1.5E-01	1.4E+00	1.4E-01	1.4E-01
Meat	6.3E-01	6.7E-01	2.8E+00	6.3E-01	6.2E-01	9.2E-01	6.2E-01	6.2E-01
Total	2.9E+00	2.9E+00	6.3E+00	2.9E+00	2.9E+00	6.7E+00	3.1E+00	1.4E+01