UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

August 3, 1999 VPCD-99-13 (LDV/LDT/SM/ICI)

Dear Manufacturer

Subject: Submitting Shift Schedules for the SFTP

Shift schedules for the SFTP may be submitted using the usual procedures explained in the CMUG, which is available on our internet page.

When creating the SFTP shift schedule you must use the time scale for the revised US06 and SC03 driving schedules which are included as appendices I and II of this letter. The revised driving schedules reflect the addition of several zero-speed seconds to the published schedules as discussed at the SFTP workshops over the past several years.

We anticipate publishing the revised schedules shortly in a direct final rule which will also contain the other technical amendments to the SFTP which were discussed in the workshops.

If you have any questions, please contact your certification team representative.

Sincerely,

Jane Armstrong, Director
Vehicle Programs Compliance Division
Office of Mobile Sources

Printed on Recycled Paper

Appendix I – Revised US06 Driving Schedule

Paragraph (g) of Appendix I to 40 CFR Part 86 will be modified to read as follows:

(g) EPA US06 Driving Schedule for Light-Duty Vehicles and Light-Duty Trucks.

EPA US06 DRIVING SCHEDULE
(Speed versus Time Sequence)

Time (sec)	Speed (mph)								
		23	44.2	48	0.0	73	54.2	98	68.2
		24	43.4	49	0.8	74	54.4	99	66.5
0	0.0	25	42.6	50	9.2	75	54.2	100	64.9
1	0.0	26	40.3	51	14.9	76	53.5	101	63.7
2	0.0	27	39.2	52	18.2	77	52.3	102	62.5
3	0.0	28	38.4	53	22.2	78	52.0	103	61.0
4	0.0	29	38.4	54	27.2	79	51.9	104	59.3
5	0.0	30	39.2	55	31.4	80	51.8	105	57.7
6	0.2	31	38.8	56	33.8	81	51.9	106	56.0
7	0.7	32	38.8	57	37.2	82	52.0	107	54.5
8	1.1	33	36.5	58	40.8	83	52.5	108	52.8
9	1.7	34	32.3	59	44.0	84	53.4	109	51.2
10	6.0	35	27.6	60	46.3	85	54.9	110	49.5
11	13.9	36	22.3	61	47.6	86	56.8	111	48.0
12	20.5	37	17.3	62	49.5	87	58.8	112	46.3
13	25.7	38	11.5	63	51.2	88	60.6	113	44.0
14	25.0	39	5.8	64	53.0	89	62.3	114	41.1
15	28.4	40	1.2	65	54.4	90	64.2	115	38.8
16	32.3	41	0.0	66	55.6	91	66.2	116	37.7
17	34.6	42	0.0	67	56.4	92	67.8	117	36.6
18	36.5	43	0.0	68	56.1	93	69.4	118	35.3
19	38.4	44	0.0	69	56.2	94	70.4	119	30.0
20	39.9	45	0.0	70	55.8	95	70.6	120	24.4
21	42.2	46	0.0	71	55.1	96	70.7	121	19.8
22	43.8	47	0.0	72	54.4	97	70.3	122	15.5

123	10.8	156	54.6	189	58.0	222	63.9	255	62.4
124	6.3	157	56.3	190	58.1	223	64.2	256	62.3
125	3.2	158	56.9	191	59.4	224	63.4	257	62.3
126	2.1	159	58.1	192	59.9	225	64.0	258	62.4
127	1.2	160	58.4	193	61.0	226	63.9	259	62.1
128	0.0	161	59.6	194	61.4	227	64.0	260	62.5
129	0.0	162	59.9	195	61.9	228	63.8	261	62.8
130	0.0	163	60.2	196	62.5	229	64.0	262	62.3
131	0.0	164	60.5	197	62.5	230	63.3	263	62.3
132	0.0	165	59.7	198	62.7	231	63.4	264	62.4
133	0.0	166	58.3	199	62.2	232	63.9	265	61.9
134	0.0	167	58.1	200	62.5	233	64.0	266	62.8
135	0.0	168	57.8	201	63.1	234	64.3	267	62.8
136	2.7	169	57.3	202	62.7	235	64.8	268	62.3
137	9.2	170	57.5	203	62.8	236	65.1	269	62.8
138	16.1	171	56.6	204	63.0	237	64.0	270	62.4
139	22.7	172	57.0	205	64.1	238	64.2	271	62.1
140	29.2	173	56.6	206	63.9	239	63.1	272	61.9
141	34.2	174	56.5	207	64.1	240	63.7	273	61.8
142	38.8	175	56.2	208	64.3	241	63.1	274	62.1
143	43.0	176	56.4	209	64.5	242	63.7	275	62.1
144	45.3	177	56.6	210	64.9	243	63.5	276	62.1
145	46.8	178	56.4	211	65.3	244	63.0	277	62.0
146	48.0	179	56.1	212	66.0	245	63.1	278	62.4
147	49.5	180	56.0	213	66.0	246	63.0	279	62.2
148	50.3	181	55.9	214	66.4	247	63.3	280	62.2
149	51.5	182	54.8	215	64.1	248	63.4	281	62.4
150	52.2	183	54.2	216	63.6	249	63.3	282	62.7
151	52.6	184	54.6	217	63.9	250	62.5	283	62.6
152	53.0	185	52.2	218	64.1	251	62.5	284	63.7
153	53.8	186	54.7	219	63.7	252	62.9	285	64.3
154	53.8	187	55.7	220	64.3	253	62.8	286	64.8
155	53.8	188	57.0	221	64.2	254	62.2	287	65.1

288	65.9	321	77.3	354	68.3	387	70.1	420	70.4
289	66.1	322	78.4	355	68.3	388	69.6	421	70.5
290	67.0	323	79.3	356	68.7	389	69.3	422	70.9
291	67.2	324	78.2	357	68.2	390	69.9	423	70.2
292	67.5	325	76.0	358	68.1	391	69.7	424	71.0
293	68.3	326	75.6	359	68.0	392	69.5	425	70.2
294	68.3	327	76.4	360	67.1	393	69.9	426	70.3
295	68.8	328	77.6	361	66.4	394	70.2	427	69.1
296	69.1	329	78.0	362	66.1	395	70.2	428	68.8
297	69.4	330	79.1	363	65.7	396	70.2	429	68.2
298	71.7	331	79.5	364	66.0	397	71.0	430	68.3
299	72.1	332	79.9	365	66.4	398	70.8	431	68.2
300	74.9	333	79.9	366	66.0	399	70.9	432	67.7
301	72.6	334	80.3	367	66.3	400	70.7	433	67.3
302	72.2	335	80.3	368	67.0	401	70.9	434	67.5
303	72.2	336	79.5	369	67.5	402	71.2	435	67.6
304	72.0	337	79.5	370	67.9	403	71.3	436	67.6
305	72.5	338	79.1	371	68.1	404	70.8	437	67.2
306	72.8	339	78.7	372	68.5	405	71.2	438	67.0
307	72.7	340	77.6	373	68.9	406	71.7	439	66.3
308	71.8	341	76.5	374	68.6	407	71.9	440	66.6
309	71.4	342	74.3	375	69.4	408	72.6	441	66.2
310	71.1	343	72.6	376	69.4	409	72.3	442	66.4
311	71.1	344	70.8	377	69.4	410	72.3	443	65.9
312	70.9	345	67.6	378	70.0	411	72.1	444	66.1
313	71.0	346	66.4	379	70.4	412	72.0	445	65.5
314	71.0	347	66.7	380	70.6	413	71.9	446	62.2
315	71.2	348	66.1	381	70.9	414	72.6	447	62.2
316	72.1	349	65.9	382	70.3	415	72.8	448	61.4
317	72.6	350	66.2	383	70.6	416	73.2	449	61.1
318	73.6	351	66.1	384	70.3	417	72.1	450	61.4
319	74.8	352	67.1	385	69.7	418	71.5	451	61.1
320	75.7	353	67.4	386	69.9	419	70.9	452	61.4

453	61.4	486	22.3	519	24.2	552	30.0	585	41.2
454	61.8	487	17.7	520	27.1	553	29.8	586	37.8
455	61.8	488	17.3	521	28.5	554	26.0	587	33.4
456	61.8	489	14.0	522	28.2	555	21.3	588	28.0
457	61.8	490	10.0	523	25.6	556	16.2	589	23.7
458	62.2	491	6.0	524	21.7	557	11.4	590	18.8
459	61.8	492	2.0	525	17.3	558	6.6	591	12.9
460	62.2	493	0.0	526	12.1	559	2.6	592	6.2
461	62.6	494	0.0	527	7.5	560	0.0	593	2.2
462	62.2	495	0.0	528	5.8	561	0.0	594	0.0
463	62.6	496	0.0	529	2.4	562	0.0	595	0.0
464	62.2	497	0.0	530	1.2	563	0.0	596	0.0
465	62.6	498	0.0	531	1.9	564	0.0		
466	62.6	499	0.0	532	6.7	565	0.0		
467	63.0	500	0.0	533	11.8	566	0.0		
468	62.6	501	0.2	534	16.8	567	0.0		
469	62.2	502	4.4	535	21.7	568	0.3		
470	61.1	503	10.1	536	25.9	569	6.4		
471	59.5	504	15.6	537	27.7	570	12.7		
472	58.8	505	20.8	538	28.0	571	19.2		
473	56.8	506	25.1	539	27.1	572	23.8		
474	55.7	507	27.7	540	24.4	573	28.2		
475	54.1	508	28.2	541	20.2	574	34.9		
476	51.5	509	26.8	542	15.2	575	37.5		
477	49.2	510	24.8	543	9.3	576	40.3		
478	48.8	511	22.4	544	5.0	577	45.0		
479	47.6	512	17.1	545	2.9	578	49.9		
480	44.9	513	11.3	546	2.4	579	51.6		
481	41.5	514	6.9	547	8.4	580	51.2		
482	37.2	515	7.5	548	13.5	581	50.6		
483	34.6	516	11.1	549	17.8	582	49.9		
484	33.0	517	15.4	550	22.2	583	47.8		
485	29.2	518	19.9	551	26.2	584	44.6		

Appendix II – Revised SC03 Driving Schedule

Paragraph (h) of Appendix I to 40 CFR Part 86 will be modified to read as follows:

(h) EPA SC03 Driving Schedule for Light-Duty Vehicles and Light-Duty Trucks

EPA SC03 DRIVING SCHEDULE
(Speed versus Time Sequence)

Time (sec)	Speed (mph)								
		22	3	46	18.3	70	12.9	94	24.7
		23	2.9	47	19	71	15.8	95	26.1
0	0	24	3.3	48	19.2	72	16.2	96	25.8
1	0	25	3.5	49	19.3	73	16.9	97	26.6
2	0	26	2.2	50	19.7	74	18.3	98	27.8
3	0	27	1.4	51	20.5	75	20.3	99	28.5
4	0	28	0	52	21	76	21.6	100	28.9
5	0	29	0	53	21.2	77	22.4	101	29.3
6	0	30	0	54	21.6	78	23	102	29.5
7	0	31	0	55	22.2	79	22.8	103	29.4
8	0	32	0	56	23.8	80	22.1	104	29.4
9	0	33	0	57	24.6	81	21.2	105	29.8
10	0	34	0	58	24.3	82	19.5	106	30.3
11	0	35	0.4	59	23.3	83	17.1	107	30.6
12	0	36	3.3	60	22.7	84	14.1	108	30.5
13	0	37	6	61	21.4	85	10.5	109	30.5
14	0	38	8	62	20.4	86	7.6	110	30.1
15	0	39	8.7	63	19.5	87	7.5	111	29.3
16	0	40	10	64	17.9	88	10	112	28.4
17	0	41	12.4	65	15.6	89	13.1	113	27.6
18	0	42	13.8	66	11.7	90	14.1	114	26.8
19	0	43	14.7	67	7.8	91	16.4	115	25.5
20	0	44	14.8	68	7.2	92	19.6	116	23.7
21	0.9	45	16.6	69	9.3	93	22.4	117	21.7

118	19.3	151	32.3	184	4.5	217	31	250	29.6
119	16.7	152	32.3	185	2	218	33.6	251	28.4
120	14.4	153	32.4	186	1	219	34.2	252	25.8
121	11.5	154	32.4	187	0.6	220	35.8	253	22.8
122	7.9	155	32.4	188	0	221	37.3	254	19
123	6.6	156	32.5	189	0	222	38.3	255	14
124	9.4	157	33.3	190	0	223	39.2	256	8.6
125	12.4	158	34.4	191	0	224	40.1	257	4.1
126	14.8	159	35.5	192	0	225	40.9	258	1.3
127	16.1	160	36.6	193	0	226	41	259	0
128	19.3	161	37.4	194	0	227	40.4	260	0
129	22.6	162	38	195	0	228	39.7	261	0
130	25.5	163	38.4	196	0	229	39.1	262	0
131	26.4	164	38.5	197	0	230	38.1	263	0
132	26.7	165	38.6	198	0	231	36.7	264	0
133	27.8	166	38.4	199	0	232	35.9	265	0
134	29.4	167	38.2	200	0	233	35.9	266	0
135	31.1	168	37.5	201	0	234	35.7	267	0
136	32.5	169	36.9	202	0	235	34.9	268	0
137	33.6	170	36.3	203	0	236	33.9	269	0
138	34.6	171	34.8	204	0	237	32.6	270	0
139	35.4	172	33	205	0	238	31.9	271	0
140	36.1	173	31.4	206	0	239	31.1	272	0
141	37	174	30.7	207	1	240	30.6	273	0
142	37.7	175	30.3	208	0.5	241	30.3	274	0
143	38.1	176	30	209	2.6	242	30.1	275	0
144	38.3	177	29.3	210	7.7	243	29.9	276	0
145	38.1	178	27.4	211	12.3	244	29.8	277	0
146	37.8	179	25.1	212	15.8	245	29.8	278	0
147	36.6	180	21.8	213	17.3	246	29.8	279	0
148	34.8	181	17.2	214	19.4	247	29.8	280	0
149	33.2	182	12.5	215	23.3	248	29.7	281	0
150	32.4	183	8.1	216	27.2	249	29.7	282	0

283	0.1	316	51.2	349	4.8	382	28.8	415	39
284	4.5	317	52.1	350	2.6	383	30	416	38.8
285	9.1	318	52.7	351	2.1	384	30.4	417	38.6
286	13.6	319	53.4	352	0	385	30.6	418	38.1
287	18.2	320	52.4	353	0	386	30.9	419	37.6
288	22.6	321	54.5	354	0	387	31.1	420	37.6
289	26.2	322	54.8	355	0	388	30.8	421	37.3
290	29.3	323	54.8	356	0	389	31.1	422	37
291	32.1	324	54.7	357	0	390	31.5	423	36.6
292	34.5	325	54.3	358	0	391	32.4	424	36.2
293	36.8	326	54	359	0	392	33.1	425	36
294	38.4	327	53.8	360	0	393	33.3	426	36
295	40	328	53.5	361	0	394	33.4	427	35.5
296	41.2	329	53.3	362	0	395	33.7	428	34.5
297	41.9	330	52.9	363	0	396	34.1	429	33
298	42.2	331	52.6	364	0	397	34.7	430	31
299	42.7	332	52	365	0	398	35	431	27.5
300	43	333	51.6	366	0	399	35.4	432	22.6
301	43.3	334	51	367	0	400	35.8	433	20
302	43.5	335	50.3	368	0	401	36	434	19
303	43.7	336	49.3	369	0	402	36.2	435	19.4
304	44.3	337	48.1	370	0	403	36.3	436	19.2
305	45.4	338	46.5	371	0	404	36.4	437	20.6
306	45.9	339	43.6	372	0	405	36.5	438	22.9
307	46.8	340	40.7	373	4.3	406	36.9	439	24.6
308	47.6	341	37.2	374	9.1	407	37.2	440	25.5
309	48.2	342	34.4	375	13.2	408	37.3	441	26.9
310	48.6	343	31.4	376	16.3	409	37.8	442	27.3
311	48.7	344	28.6	377	19.1	410	38.2	443	28.2
312	48.6	345	24.2	378	20.9	411	38.6	444	29.6
313	49	346	18.1	379	22.7	412	38.8	445	30.2
314	49.8	347	12.3	380	24.8	413	38.6	446	30.7
315	50.5	348	8.1	381	26.9	414	38.9	447	31.3

448	31.7	481	32.8	514	13.2	547	10.5	580	17.7
449	32.2	482	32.9	515	9.5	548	11.3	581	17.5
450	32.5	483	32.8	516	6.4	549	12.4	582	17.7
451	33	484	32.8	517	4.1	550	12.8	583	17.7
452	33.2	485	32.4	518	2.5	551	14	584	18.1
453	33.3	486	31.6	519	0	552	14.6	585	18.4
454	33.1	487	30.6	520	0	553	15.5	586	19.2
455	32.7	488	30.3	521	0	554	17	587	18.9
456	32.3	489	30.3	522	0	555	17.5	588	18
457	31.9	490	29.8	523	0	556	18.1	589	15.6
458	31.5	491	29.3	524	0	557	18.4	590	13.3
459	31.2	492	28.9	525	0	558	18.5	591	10
460	30.8	493	28.8	526	0	559	18.2	592	7.7
461	30.5	494	29.3	527	0	560	18.5	593	5.8
462	30.2	495	30	528	0	561	18.3	594	3.7
463	29.9	496	30.2	529	0	562	18.2	595	2.4
464	30.2	497	30.4	530	0	563	17.9	596	0
465	30.6	498	30.7	531	0	564	17.7	597	0
466	30.9	499	30.8	532	0	565	17.7	598	0
467	31.2	500	29.8	533	0	566	17.3		
468	31.8	501	28.7	534	0	567	17.4		
469	32.4	502	28.9	535	0	568	16.8		
470	32.5	503	29.2	536	0	569	17.5		
471	32.3	504	29.4	537	0	570	17.7		
472	32.3	505	28.6	538	0	571	17.5		
473	32.8	506	27	539	0.6	572	17.6		
474	32.9	507	27.2	540	3.3	573	17.3		
475	32.8	508	26.6	541	5.9	574	17.4		
476	32.8	509	23.2	542	8.9	575	17.6		
477	33.3	510	21.2	543	10.2	576	17.6		
478	33.4	511	21.2	544	10.4	577	17.9		
479	32.9	512	20.8	545	9.9	578	18		
480	32.9	513	17.9	546	9.9	579	17.8		