Permit Attachment 1-A
EU 100 - Hot Water Generators / Boilers with an individual heat input rate ≥ 10 MMBtu/hr

Asset Identification Number	Location Description	Building Number	Manufacturer	Model	Serial No.	Capacity	Capacity Unit of Measure	Start Up Date[1]	Primary Fuel	Date Removed
IM-B-0002-A	Utility Annex	K6-0947	The International Boiler Works (IBW) Company	TJW-C-20	L-260	20	MMBtu/hr	1987	Natural Gas	N/A
IM-B-0002-B	Utility Annex	K6-0947	The International Boiler Works (IBW) Company	TJW-C-20	14918	20	MMBtu/hr	1985	Natural Gas	N/A
IM-B-0002-C	Utility Annex	K6-0947	The International Boiler Works (IBW) Company	TJW-C-20	L-319	20	MMBtu/hr	1991	Natural Gas	N/A

[1] The start up date may be an equipment installation date, facility construction date, air construction permit issue date, equipment manufactured date, or an estimated startup date provided by facility personnel.
NA Not Assigned/Not Applicable

Permit Attachment 2-A
EU 101 - Surface Coating Operations

Asset Identification Number	Location Description	Building Number	Description	Manufacturer	Model	Type of Particulate Matter Control	Startup Date[1]	Date Removed
IM-P-001 A	Paint Building/Corrosion Control Facility	M6-1625	Corrosion Control Booth Number 1	Ralph, Hahn & Associates	N/A	Filter	1992	N/A
IM-P-001 B	Paint Building/Corrosion Control Facility	M6-1625	Corrosion Control Booth Number 2	Ralph, Hahn & Associates	N/A	Filter	1992	N/A
SK-P-001	Manufacturing Building (Booster Fabrication Facility)	L6-0247	Top Coat Application Cell	Currier	39-ED-29	Filter	1986	N/A
SK-P-004A	Manufacturing Building (Booster Fabrication Facility)	L6-0247	Thermal Protection System (TPS) Spray Cell No. 1 (North Room 132)	Currier	39-ED-29	Filter	1986	N/A
SK-P-004A	Manufacturing Building (Booster Fabrication Facility)	L6-0247	Thermal Protection System (TPS) Spray Cell No. 2 (South Room 145)	Currier	39-ED-29	Filter	1986	N/A
SK-P-004B	Manufacturing Building (Booster Fabrication Facility)	L6-0247	Thermal Protection System (TPS) Cure Cell No. 1 (North Room 141)	Currier	39-ED-29	Filter	1986	N/A
SK-P-004B	Manufacturing Building (Booster Fabrication Facility)	L6-0247	Thermal Protection System (TPS) Cure Cell No. 2 (South Room 146)	Currier	39-ED-29	Filter	1986	N/A
SK-P-006 A	Solid Rocket Booster (SRB) Paint Building	66310	East Spray Cell Paint Booth	Binks Manufacturing Co.	FAC-0101-1	Filter	1985	N/A
SK-P-006 B	Solid Rocket Booster (SRB) Paint Building	66310	West Spray Cell Paint Booth	Binks Manufacturing Co.	FAC-0101-2	Filter	1985	N/A
TM-H-002	Component Refurbishment and Chemical Analysis Facility (CRCA)	K6-1696	IPA Vent Hood	Wiltech - Field Fabricated	N/A	N/A	1998	N/A
TM-P-002	SRB Recovery Building Hangar AF	66250	Small Parts Paint Booth	USBI - Field Fabricated	N/A	Filter	1990	N/A
TM-P-003	Paint Shop	K6-1397	Paint Booth	Spray Booth Systems, Inc.	N/A	Filter	1984	N/A
TM-P-001	Hangar N	1728	Paint Booth	Col-Met Spray Booths, Inc	EIE 1208	Filter	2008	December 2012
TM-P-004	Hangar N	1728	Film Lube Booth	DeVilbiss	N/A	Filter	1994	December 2012
ARB-1844B	Abrasive Recovery Building	K6-1844B	Abrasive Recovery and Paint Booth	N/A	N/A	Dust Bags	1996	Inactive 11/4/2015 - 10/10/2016 Operational 10/11/2016->

Permit Attachment 3-A
EU 102 – Non-Emergency Stationary CI RICE subject to NESHAP Subpart ZZZZ

Asset Identification Number	Location Description	Building Number	Engine Description	Engine Displacement (liters per cylinder)	Engine Manufacturer	Engine Model Number	Engine Serial Number	Engine Manufacture Date	Start-up Date[1]	Nominal Rating (kW)	Standby Break Horsepower (bhp)[2]	EPA Engine Emissions Tier Number (0 - 4)	Subject to New Source Performance Standard (NSPS)/40 CFR Part 60, Subpart IIII (Y/N)	Rationale for NSPS Applicability Determination	Subject to RICE NESHAP/ 40 CFR Part 63 Subpart ZZZZ (Y/N)	Comments
EVG01001	Emergency Power Station	K6-1091	Electric Power Generator	4.3	Caterpillar	3516	7RN00683	10/16/98	4/6/99	2000	2933	0	N	Manufactured BEFORE April 1, 2006	Y	
EVG01002	Emergency Power Station	K6-1091	Electric Power Generator	4.3	Caterpillar	3516	7RN00686	10/20/98	4/6/99	2000	2933	0	N	Manufactured BEFORE April 1, 2006	Y	
EVG01003	Emergency Power Station	K6-1091	Electric Power Generator	4.3	Caterpillar	3516	7RN00687	10/21/98	4/5/99	2000	2933	0	N	Manufactured BEFORE April 1, 2006	Y	
EVG01004	Emergency Power Station	K6-1091	Electric Power Generator	4.3	Caterpillar	3516	7RN00688	10/22/98	4/5/99	2000	2933	0	N	Manufactured BEFORE April 1, 2006	Y	
EVG01005	Emergency Power Station	K6-1091	Electric Power Generator	4.3	Caterpillar	3516	7RN00689	10/23/98	4/2/99	2000	2933	0	N	Manufactured BEFORE April 1, 2006	Y	
PGE01001	Emergency Generator Building (Press Site)	K7-1203	Electric Power Generator	2.6	Caterpillar	LC6	7WG02514	10/20/04	6/27/05	500	603	0	N	Manufactured BEFORE April 1, 2006	Y	
PGE01002	Emergency Generator Building (Press Site)	K7-1203	Electric Power Generator	2.6	Caterpillar	LC6	7WG02524	10/22/04	6/27/05	500	603	0	N	Manufactured BEFORE April 1, 2006	Y	
HE902347	Generator Building/Communications Distribution & Switching Center (CD&SC)	M6-0139	Electric Power Generator	2.3	Cummins Onan	350DQBB	11855364	7/1/97	8/1/97	350	469	1	N	Manufactured BEFORE April 1, 2006	Y	
HE902351	Generator Building/Communications Distribution & Switching Center (CD&SC)	M6-0139	Electric Power Generator	2.3	Cummins Onan	350DQBB	11856022	8/1/97	8/1/97	350	469	1	N	Manufactured BEFORE April 1, 2006	Y	
HE503138	Blast Building #2	M6-1627	Dust Collector	0.75	John Deere	4039DF001	T04039D554327	6/18/96	7/1/05	60	80	0	N	Manufactured BEFORE April 1, 2006	Y	Note: NASA KSC acquired engine in 2009
HE503140	Blast Building #2	M6-1627	Dust Collector	TBD	John Deere	TBD	1A9VSNRZXT1247692	6/1/96	8/1/1992	60	80	0	N	Manufactured BEFORE April 1, 2006	Y	

[1] The installation date may be an equipment installation date, facility construction date, air construction permit issue date, equipment manufactured date, or an estimated startup date provided by facility personnel.
[2] Standby bhp @ 1800 RPM for generator engines (number includes parasitic accessories)

CILC = Florida Power & Light (FPL) Commercial/Industrial Load Control Program
TBD = To be determined
NA Not Assigned/Not Applicable

Permit Attachment 4-A
EU 103 – Emergency Stationary CI RICE subject to NSPS Subpart IIII

Asset Identification Number	Location Description	Building Number	Engine Description	Engine Displacement (liters per cylinder)	Engine Manufacturer	Engine Model Number	Engine Serial Number	Engine Manufacture Date	Start-up Date[1]	Nominal Rating (kW)	Standby Break Horsepower (bhp)[2]	EPA Engine Emissions Tier Number (0 - 4)	Subject to New Source Performance Standard (NSPS)/40 CFR Part 60, Subpart IIII (Y/N)	Rationale for NSPS Applicability Determination	Subject to RICE NESHAP/ 40 CFR Part 63 Subpart ZZZZ (Y/N)	Comments
BOG01001	Kennedy Data Center (KDC)	M6-0547	Electric Power Generator	3.14	Cummins Onan	QSK50-G5	25399409	4/28/14	2/1/2016	1250	1676	2	Y	Manufactured AFTER April 1, 2006	N	
CLG01001	Payload Hazardous Servicing Facility (PHSF)	M7-1354	Electric Power Generator	2.7	Caterpillar	C32	PRH00520	7/6/10	11/22/2010	1000	1340	2	Y	Manufactured AFTER April 1, 2006	N	
3367659	Backup Generators Hangar AE	60674	Electric Power Generator	3.7	Caterpillar	C32	PRH00494	6/28/10	6/16/2011	1000	1340	2	Y	Manufactured AFTER April 1, 2006	N	
S2G01001	Multi Payload Processing Facility (MPPF)	M7-1104	Electric Power Generator	2.3	Caterpillar	C27 ATAAC	MJE03713	10/10/13	TBD	750	1141	2	Y	Manufactured AFTER April 1, 2006	N	
2864922	Backup Generator (Hangar AE)	60674	Electric Power Generator	2.5	Caterpillar	C15	FSE03276	6/9/10	6/16/2011	400	713	3	Y	Manufactured AFTER April 1, 2006	N	
XZG01001	Generator Enclosure/former Central Instrumentation Facility (CIF)	M6-0342D	Electric Power Generator	1.5	Caterpillar	C9	S9L03258	8/9/10	10/28/10	250	335	3	Y	Manufactured AFTER April 1, 2006	N	
FPG02001	Fire Station #2	J6-2370	Electric Power Generator	1.5	Caterpillar	C9	S9L02581	4/30/09	8/5/00	250	335	3	Y	Manufactured AFTER April 1, 2006	N	
HE906236	Pump House N9 (Grove Pump #9)	M5-1586A	Flood Control Pump Engine	1	Cummins	6BTA 200	60251798	9/9/08	9/9/08	149	200	1	Y	Reconstructed After July 11, 2005	N	
FSG01001	Fire Station #1	M6-0695	Electric Power Generator	1.1	John Deere	4045HF285	PE4045L240434	6/6/13	9/3/2013	107	158	3	Y	Manufactured AFTER April 1 ,2006	N	
HE906260	Pump House N5 (Grove Pump #5)	N6-0107	Flood Control Pump Engine	1.1	John Deere	4045HF285	PE4045L019648	8/8/07	2009	104	139	3	Y	Manufactured AFTER July 1, 2006	N	
DNC Admin M6-0410	Visitors Center, Administrative Building	M6-0410	Electric Power Generator	0.9	Generac	D3400T-Gen1	TP9W00635	11/26/12	7/15/2014	63	85	3	Y	Manufactured AFTER April 1, 2006	N	
F-Gen-06	Visitors Center, Commissary Building	M6-0458	Electric Power Generator	0.6	John Deere	5030TF270C	PE5030T085836	5/20/06	2006	50	80	2	Y	Manufactured AFTER April 1, 2006	N	
HE906258	Pump House N3 (Grove Pump #3)	N6-0407	Flood Control Pump Engine	1	Cummins	4BT 76	60117234	9/9/05	9/9/05	57	76	0	Y	Reconstructed After July 11, 2005	N	Removed from Service 9/30/2016
TBD	Cross Connect Terminal # 14/former Instrumentation Road (MARGO)	K7-1607	Electric Power Generator	0.6	Perkins	404D-22G	01056A	8/1/15	TBD	24	30	4i	Y	Manufactured AFTER July 1, 2006	N	

Permit Attachment 4-A
EU 103 – Emergency Stationary CI RICE subject to NSPS Subpart IIII

Asset Identification Number	Location Description	Building Number	Engine Description	Engine Displacement (liters per cylinder)	Engine Manufacturer	Engine Model Number	Engine Serial Number	Engine Manufacture Date	Start-up Date[1]	Nominal Rating (kW)	Standby Break Horsepower (bhp)[2]	EPA Engine Emissions Tier Number (0 - 4)	Subject to New Source Performance Standard (NSPS)/40 CFR Part 60, Subpart IIII (Y/N)	Rationale for NSPS Applicability Determination	Subject to RICE NESHAP/ 40 CFR Part 63 Subpart ZZZZ (Y/N)	Comments
TBD	Support Building	J6-1874	Electric Power Generator	1.12	Cummins	QSB7-G5 NR3	7421957	8/1/2016	10/14/2016	209	325	4	Y	Manufactured AFTER April 1, 2006	N	

[1] The installation date may be an equipment installation date, facility construction date, air construction permit issue date, equipment manufactured date, or an estimated startup date provided by facility personnel.
[2] Standby bhp @ 1800 RPM for generator engines (number includes parasitic accessories)
TBD = To be determined

Permit Attachment 5-A
EU 104 – Non-Emergency Stationary CI RICE Subject to NSPS Subpart IIII

Asset Identification Number	Location Description	Building Number	Engine Description	Engine Displacement (liters per cylinder)	Engine Manufacturer	Engine Model Number	Engine Serial Number	Engine Manufacture Date	Start-up Date[1]	Nominal Rating (kW)	Standby Break Horsepower (bhp)[2]	EPA Engine Emissions Tier Number (0 - 4)	Subject to New Source Performance Standard (NSPS)/40 CFR Part 60, Subpart IIII (Y/N)	Rationale for NSPS Applicability Determination	Subject to RICE NESHAP/ 40 CFR Part 63 Subpart ZZZZ (Y/N)	Comments
BOG02001	Kennedy Data Center	M6-0547	Electric Power Generator	3.14	Cummins Onan	QSK50-G8	I140750178	6/15/14	2/1/16	1250	1676	4i	Y	Manufactured AFTER April 1,2006	Y	
KG503002	Blast Building #2	M6-1627	Vacuum System	1.0	Cummins	6BT-152-2500	60237662	3/3/2006**	1993	114	152	0	Y	Manufactured BEFORE April 1, 2006	Y	
HE503156	Blast Building #2	M6-1627	Dust Collector	0.85	Perkins	3914/2200	LQ26378A	12/1/15	2/10/2017	56	75	4	Y	Manufactured AFTER April 1,2006	Y	
HE503158	Blast Building #2	M6-1627	Dust Collector	0.85	Perkins	3914/2200	LQ26373A	12/1/15	2/10/2017	56	75	4	Y	Manufactured AFTER April 1,2006	Y	
HE503160	Blast Building #2	M6-1627	Dust Collector	0.85	Perkins	3914/2200	LQ26361A	12/1/15	2/10/2017	56	75	4	Y	Manufactured AFTER April 1,2006	Y	
TBD	Central Campus	TBD	Electric Power Generator	2.3	Caterpillar	C27ATAAC	TBD	TBD	TBD	800	TBD	4	Y	Manufactured AFTER April 1,2006	Y	

[1] The installation date may be an equipment installation date, facility construction date, air construction permit issue date, equipment manufactured date, or an estimated startup date provided by facility personnel.
[2] Standby bhp @ 1800 RPM for generator engines (number includes parasitic accessories)
** Engine was reconstructed after the regulatory date.
NA Not Assigned/Not Applicable
'TBD = To be determined

Permit Attachment 6-A
EU 105 – Emergency Fire Pump CI RICE Subject to NSPS Subpart IIII

Asset Identification Number	Location Description	Building Number	Engine Description	Engine Displacement (liters per cylinder)	Engine Manufacturer	Engine Model Number	Engine Serial Number	Engine Manufacture Date	Start-up Date[1]	Nominal Rating (kW)	Standby Break Horsepower (bhp)[2]	EPA Engine Emissions Tier Number (0 - 4)	Subject to New Source Performance Standard (NSPS)/40 CFR Part 60, Subpart IIII (Y/N)	Rationale for NSPS Applicability Determination	Subject to RICE NESHAP/ 40 CFR Part 63 Subpart ZZZZ (Y/N)	Comments
HE906314	Firex Pump Station	M7-1362	Fire Pump Engine	3.9	Cummins	QSK23-NR2	326955	4/8/2014	TBD	910	1220	2	Y	Manufactured AFTER July 1, 2006	N	
HE906268	RLV Hangar - Flight Vehicle Facility	J6-2466	Fire Pump Engine	1	Cummins	6BTA5.9G3	46770605	6/24/07	11/18/08	140	206	1	Y	Manufactured AFTER July 1, 2006	N	
HE906270	RLV Hangar - Flight Vehicle Facility	J6-2466	Fire Pump Engine	1	Cummins	6BTA5.9G3	46770775	6/23/07	11/18/08	140	206	1	Y	Manufactured AFTER July 1, 2006	N	
HE906320	Utility Annex	K6-0947	Fire Pump Engine	2.25	John Deere	6135HFC48	RG6135L029411	7/1/2014	TBD	392	526	3	Y	Manufactured AFTER July 1, 2006	N	
HE906322	Utility Annex	K6-0947	Fire Pump Engine	2.25	John Deere	6135HFC48	RG6135L029419	7/1/2014	TBD	392	526	3	Y	Manufactured AFTER July 1, 2006	N	
HE906324	Utility Annex	K6-0947	Fire Pump Engine	2.25	John Deere	6135HFC48	RG6135L029413	7/1/2014	TBD	392	526	3	Y	Manufactured AFTER July 1, 2006	N	
HE906326	Utility Annex	K6-0947	Fire Pump Engine	2.25	John Deere	6135HFC48	RG6135L029414	7/1/2014	TBD	392	526	3	Y	Manufactured AFTER July 1, 2006	N	

*Identifies the Plot Plan Figure that the emission unit is shown on.
TBD=To Be Determined
[1] The installation date may be an equipment installation date, facility construction date, air construction permit issue date, equipment manufactured date, or an estimated startup date provided by facility personnel.
[2] Standby bhp @ 1800 RPM for generator engines (number includes parasitic accessories)

These Emissions standards apply to each engine Subject to NSPS IIII listed in EU 103 (Attachment 4-A), EU 104 (Attachment 5-A), and EU 105 (Attachment 6-A)

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

As stated in §60.4202(a)(1), you must comply with the following emission standards

Engine power	Emission standards for 2008 model year and later emergency stationary CI			
	Model year(s)	NO_X + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)1
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560(175≤HP≤750)	2009
KW>560 (HP>750)	2008

Permit Attachment 7-A
EU 106 – Chromate Conversion Operation subject to NESHAP WWWWWW (6W)

Asset Identification Number	Location Description	Building Number	Description	Tank Size (gal)	Tank Contents	Agitation Type	Tank Closed During Idle	Temperature (°F)
NA	Paint Shop	K6-1397	Chromate Conversion Tank	380	Alodine 1200	Mechanical	Yes	70 - 100

'NA Not Assigned/Not Applicable

Kennedy Space Center
Title V Air Operation Permit
Permit Number 0090051-033-AV

Permit Attachment 8-A
EU 107 – Portable Materials Crushing Operation subject to NESHAP Subpart OOO

Asset Identification Number	Location Description	Building Number	Description	Material	Associated Engines*	Engine Rating (horsepower)	Maximum Capacity (tons/hr)
NA	Diverted Aggregate Reclamation and Collection Yard (DARCY)	DARCY	Portable Crusher	Construction	TBD	535	200

*Typical engine that would be used during a crushing operation. Engine information could change. Current information is based on 2015 crushing event.
N/A = Not applicable
TBD = To be determined