

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0603232
Insp Area: 3
Thos Bros: 318B4

Site Address: 5000 73RD ST SAC
Parcel No: 023-0075-015

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
NEW CENTURY AIR
3129 FITE CIR #130
SACRAMENTO CA 95827

OWNER
NORRIS RALPH A/SUSAN C
5000 73RD ST
SACRAMENTO, CA 95820

ARCHITECT

Nature of Work: PAPERLESS, CHANGE OUT HVAC SPLIT SYSTEM PACKAGE - SMOKE DETECTORS ARE REQUIRED PER 2001 CBC-COMPLIANCE
DOCUMENTS ARE DUE AT FINAL

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

X License Class C20 License Number 718740 Date 3-10-06 Contractor Signature Dee Perez

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner will have the burden of proving that he/she did not build or improve for the purpose of sale.)

PAID
CITY OF SACRAMENTO

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. _____ B & PC for this reason: NEW CITY HALL

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

X Date 3-10-06 Applicant/Agent Signature Dee Perez

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

X I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier STATE FUND Policy Number 1616422 Exp Date 01/01/2007

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 3-10-06 Applicant Signature Dee Perez

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 1 of 8) CF-4R

5000 73RD ST Project Address Dave or Joe	Sacramento CA 95820 916-362-2822 Telephone 916-765-9459 Telephone 3/24/06 Date	New-Century Air Systems Builder Name 50003 Plan Number 20-520A Sample Group Number 1143 Sample House Number
HERS Rater <i>[Signature]</i> Certifying Signature		
Firm: Energy Analysis and Comfort Solutions Inc.	HERS Provider: CalCerts	
Street Address: P. O. Box 2233	City/State/Zip: Orangevale, CA 95662	

Copies to: Builder, HERS Provider and Building Department

HERS RATER COMPLIANCE STATEMENT

The house was: Tested Approved as part of sample testing, but was not tested

As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic tested compliance requirements as checked on this form. The HERS rater must check and verify that the new distribution system is fully ducted and correct tape is used before a CF-4R may be released on every tested building. The HERS rater must not release the CF-4R until a properly completed and signed CF-6R has been received for the sample and tested buildings.

The installer has provided a copy of CF-6R (Installation Certificate).

New Distribution system is fully ducted (i.e., does not use building cavities as plenums or platform returns in lieu of ducts)

New systems where cloth backed, rubber adhesive duct tape is installed, mastic and draw bands are used in combination with cloth backed, rubber adhesive duct tape to seal leaks at duct connections.

MINIMUM REQUIREMENTS FOR DUCT LEAKAGE REDUCTION COMPLIANCE CREDIT

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3.

Duct Diagnostic Leakage Testing Results

NEW CONSTRUCTION:	Measured Values	
Duct Pressurization Test Results (CFM @ 25 Pa)		
1 Enter Tested Leakage Flow in CFM:		
2 Fan Flow: Calculated (Nominal: Cooling Heating) or Measured If Fan Flow is Calculated as 400 cfm/ton x number of tons or as 21.7 cfm/(kBtu/hr) x Heating Capacity in Thousands of Btu/hr, enter total calculated or measured fan flow in CFM here:		
3 Pass if Leakage Percentage < 8% for Final or < 4% at Rough-in: [100 x [(Line # 1) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out		
4 Enter Tested Leakage Flow in CFM from Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.		
5 Enter Tested Leakage Flow in CFM from Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.		
6 Enter Reduction in Leakage for Altered Duct System (Line # 4) Minus (Line # 5) - (Only if Applicable)		
7 Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8 Entire New Duct System - Pass if Leakage Percentage < 8% for Final or < 4% at Rough-in [100 x [(Line # 8) / Line # 2]]		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out		
Use one of the following four Test or Verification Standards for compliance:		
9 Pass if Leakage Percentage < 15% [100 x [(Line # 6) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
10 Pass if Leakage to Outside Percentage < 10% [100 x [(Line # 7) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11 Pass if Leakage Reduction Percentage < 60% [100 x [(Line # 6) / (Line # 4)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12 Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Pass if One of Lines # 9 through # 12 pass		

0603232
5000 73rd St (Airsealed 033006)
SSS

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 3 of 8) CF-4R

5000 73RD ST	Sacramento CA 95820	New-Century Air Systems
Project Address	916-362-2822	Builder Name 50003
Days or Joe	Telephone 916-768-9459	Plan Number 20-520A
Builder Contact John Gustason	HERS Rater [Signature]	Sample Group Number 1143
HERS Rater [Signature]	Telephone 3/24/06	Sample House Number
Verifying Signature	Date	
Firm: Energy Analysis and Comfort Solutions Inc.	HERS Provider: CalCerts	

Street Address: P. O. Box 2233 City/State/Zip: Orangevale, CA 95662

Copies to: Builder, HERS Provider and Building Department

HERS RATER COMPLIANCE STATEMENT

The house was: Tested Approved as part of sample testing, but was not tested

As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic tested compliance requirements as checked on this form.

The installer has provided a copy of CF-6R (Installation Certificate).

THERMOSTATIC EXPANSION VALVE (TXV)

Procedures for field verification of thermostatic expansion valves are available in RACM, Appendix RI.

<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified.		
		Yes is a pass	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

REFRIGERANT CHARGE MEASUREMENT

Verification for Required Refrigerant Charge and Adequate Airflow for Split System Space Cooling Systems without Thermostatic Expansion Valves

Outdoor Unit Serial #	
Location	
Outdoor Unit Make	
Outdoor Unit Model	
Cooling Capacity	Btu/hr
Date of Verification	
Date of Refrigerant Gauge Calibration	(must be checked monthly)
Date of Thermocouple Calibration	(must be checked monthly)

Standard Charge Measurement Procedure (outdoor air dry-bulb 55oF and above):

Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix RD2.

Note: The system should be installed and charged in accordance with the manufacturer's specifications before starting this procedure.

Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix RD2.

<input type="checkbox"/> Yes <input type="checkbox"/> No	A copy of CF-6R (Installation Certificate) has been provided with refrigerant charge measurement documented.
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NORRIS, RALPH & SUSAN

3-13-06

Project Title

Date

5000 73RD ST

Sacramento CA 95820

0603232

Project Address

Building Permit #

Dave or Joe

916-362-2822

Documentation Author

Telephone

Plan Check / Date

Prescriptive

12

Field Check / Date

Compliance Method (Prescriptive)

Climate Zone

Enforcement Agency Use Only



Alternative Component Package Method: (check one) C X D D (Alternative)

Package C and Package D choices require HERS rater field verification and/or diagnostic testing (see CF-1R page 3)

For Package D Alternative see Appendix B Table 151-C Footnotes 7-14

GENERAL INFORMATION

Total Conditioned Floor Area (CFA) 1018 ft² Average Ceiling Height: 8 ft

Maximum Allowed West Facing Fenestration Products Per Table 151-B or 151-C --- (5% X CFA) NA ft²

Maximum Allowed Total Fenestration Products Per Table 151-B or 151-C --- (20% X CFA) NA ft²

Building Type: (check one or more) Single Family Multifamily Addition Alteration

(If adding fenestration fill out WS-4R, Fenestration Maximum Allowed Area Worksheet and see Section 8.3.2 for Additions and 8.3.3 for Alterations.)

Number of Stories: 1 Number of Dwelling Units: 1

Floor Construction Type: slab Slab/Raised Floor (circle one or both)

Front Orientation: E North / South / East / West / All Orientations (input front orientation in degrees from True North and circle one).



RADIANT BARRIER (required in climate zones 2, 4, 8-15)

OPAQUE SURFACES INCLUDING OPAQUE DOORS

Component Type (Wall, Roof, Floor, Slab Edge, Doors)	Frame Type (Wood or Metal)	Cavity Insulation R-Value	Continuous Insulation R-Value	Assembly Ufactor (for wood, metal frame and mass assemblies) 1	Joint Appendix IV Reference	Roof Radiant Barrier Installed Yes or No	Location/Comments (attic, garage, typical, etc.)

1) See Joint Appendix IV in Section IV.2, IV.3 and IV.4, which is the basis for the U-factor criterion. U-factors can not exceed prescriptive value to show equivalence to R-values.

NORRIS, RALPH & SUSAN

Project Title

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FENESTRATION PRODUCTS – U-FACTOR AND SHGC

FENESTRATION MAXIMUM ALLOWED AREA WORKSHEET WS-4R –must be included for New Construction, Additions and Alterations.

Fenestration #/Type/Pos. (Front, Left, Rear, Right, Skylight)	Orientation, N, S, E, W1	Area (ft2)	U-factor2	U-factor Source3	SHGC4	SHGC Source5	Exterior Shading/Overhangs6, 7 Ck box if WS-3R is Included
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

- 1) Skylights are now included in West-facing fenestration area if the skylights are tilted to the west or tilted in any direction when the pitch is less than 1:12. See §151(f)3C and in Section 3.2.3 of the Residential Manual
- 2) Enter values in this column are either NFRC Rated value or from Standards default Table 116A.
- 3) Indicate source either from NFRC or Table 116A,
- 4) Enter values in this column from NFRC or from Standards Default Table 116B or adjusted SHGC from WS-3R.
- 5) Indicate source either from NFRC or Table 116B.
- 6) Shading Devices are defined in Table 3-3 In the Residential Manual and see WS-3R to calculate Exterior Shading devices.
- 7) See Section 3.2.4 in the Residential Manual.

HVAC SYSTEMS

Heating Equipment Type and Capacity furnace, heat pump, boiler, etc.	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location (ducts, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Configuration (split or package)
G/E	80.00 AFUE	ATTIC	R6	Programable	Package
72000 BTU	0 HSPF				

Cooling Equipment Type and Capacity (A/C, Heat Pump, Evap Cool)	Minimum Efficiency (SEER or EER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Configuration (split or package)
G/E	14 SEER	ATTIC	R6	Programable	Package
36000 BTU	12 EER				

NORRIS, RALPH & SUSAN

Project Title

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SEALED DUCTS and TXVs (or Alternative Measures)

A signed CF-4R Form must be provided to the building department for each home for which the following are required.

<input checked="" type="checkbox"/>	Sealed Ducts (all climate zones) (Installer testing and certification and HERS rater field verification required.)
<input checked="" type="checkbox"/>	TXVs, readily accessible (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)
<input type="checkbox"/>	Refrigerant Charge (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)

OR

<input type="checkbox"/>	Alternative to Sealed Ducts and Refrigerant Charge /TXVs (See Package D Alternative Package Features for Project Climate Zone in the RM Appendix B Table 151-C, Footnotes 7-14.
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OR

<input type="checkbox"/>	For additions and alterations, duct systems that are not documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Residential ACM Manual and duct systems with more than 40 linear feet in unconditioned spaces shall meet the requirements of Section 150(m) and duct insulation requirements of Package D.
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WATER HEATING SYSTEMS

<input type="checkbox"/>	Check box if system meets criteria of a "Standard" system. Standard system is one gas-fired water heater per dwelling unit. If the water heater is a storage type, 50 gallons is the maximum capacity and recirculation system is not allowed.
<input type="checkbox"/>	Check box when using Preapproved Alternative Water Heating table, Table 5-4 in Chapter 5 in the Residential Manual. No water heating calculations are required, and the system complies automatically.
<input type="checkbox"/>	Check box if system does not meet criteria of "Standard" system, and does not comply with the Preapproved Alternative Water Heating table. In this case, the Performance Method must be used and must be included in the submittal.
<input type="checkbox"/>	Check box to verify that a time control is required for a recirculating system pump for a system serving multiple units

Systems serving single dwelling units

Water Heater Type/Fuel Type	Distribution Type	Number in System	Rated Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value

System serving multiple dwelling units

Water Heater Type/Fuel Type	Distribution Type	Number in System	Rated Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value

¹ For small gas storage water heaters (rated inputs of less than or equal to 75,000 Btu/hr), electric resistance, and heat pump water heaters, list Energy Factor. For large gas storage water heaters (rated input of greater than 75,000 Btu/hr), list Rated Input, Recovery Efficiency, Thermal Efficiency and Standby Loss. For instantaneous gas water heaters, list Rated Input and Thermal Efficiencies.

Pipe Insulation (kitchen lines > 3/4 inches) All hot water pipes from the heating source to the kitchen fixtures that are 1/2 inches or greater in diameter shall be thermally insulated as specified by Section 150 (j) 2 A or 150 (j) 2 B.

NORRIS, RALPH & SUSAN

Project Title

Date

SPECIAL FEATURES NOT REQUIRING HERS VERIFICATION (add extra sheets if necessary)

Indicate which special features are part of this project. The list below represents special features relevant to the Prescriptive and Performance Method.

	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Metal Framed Walls	CF-1R	
<input type="checkbox"/>	Radiant Barriers	CF-1R	
<input type="checkbox"/>	Exterior Shades	WS-4R N/A; Performance Calculation	
<input type="checkbox"/>	Cool Roof	Required. Attach CRRCL Label to Forms.	
<input type="checkbox"/>	Dedicated Hydronic Heating System	Performance Calculation Required; Attach Run to Forms.	
<input type="checkbox"/>	Combined Hydronic System	Performance Calculation Required; Attach Run to Forms.	
<input type="checkbox"/>	Gas Cooling	N/A; Performance Calculation Required.	
<input type="checkbox"/>	Buried Ducts	N/A; Indicate on building plans.	
<input type="checkbox"/>	Kitchen Pipe Insulation	See Section 5.6.2 Distribution Systems in Residential Manual.	
<input type="checkbox"/>	Multiple Water Heaters Per Dwelling Unit	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Central Water Heating System Serving Multiple Dwellings	Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Non-NAECA Large Water Heater	CF-1R	
<input type="checkbox"/>	Indirect Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Instantaneous Gas Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Solar Water Heating System	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Wood Stove Boiler	Performance Calculation and attach Run to Forms	

SPECIAL FEATURES REQUIRING HERS RATER VERIFICATION

(add extra sheets if necessary) Indicate to the HERS Rater which credits are part of this project and need verification.

	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Duct Sealing	CF-6R part 4 of 12	
<input type="checkbox"/>	Refrigerant Charge	CF-6R part 5 of 12	
<input type="checkbox"/>	Thermostatic Expansion Valve	CF-6R part 6 of 12	

NORRIS, RALPH & SUSAN

Project Title

Date

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business and Professions Code)

Documentation Author

Name: Dave or Joe	Name: Dave or Joe
Title/Firm: New-Century Air Systems	Title/Firm: New-Century Air Systems
Address: 3129 Fite Cir #130 Sacramento CA 95827	Address: 3129 Fite Cir #130 Sacramento CA 95827
Telephone: 916-362-2822	Telephone: 916-362-2822
License #: 718740	
<i>[Signature]</i> 3-13-06	<i>[Signature]</i> 3-13-06
(signature) (date)	(signature) (date)

Enforcement Agency

Name:	Comments:
Title	
Agency:	
Telephone:	
(signature / stamp)	(date)

5000 73RD ST

Sacramento CA 95820

0603232

Site Address

Permit Number

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

HVAC SYSTEMS:

Heating Equipment

Equip Typ (pkg. heat pump)	CEC Certified Mfr. Name, Model and Serial Number	# of Identical Systems	Efficiency (AFUE, etc.) ¹ >(CF-1R value)	Duct Location (attic, etc.)	Duct or Piping R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)
Package	TRANE	1	80.00 AFUE	ATTIC	R6	0	72000
	YCZ036		0 HSPF				
G/E	0						

Cooling Equipment

Equip Typ (pkg. heat pump)	CEC Certified Mfr. Name, Model and Serial Number	# of Identical Systems	Efficiency (AFUE, etc.) ¹ >(CF-1R value)	Duct Location (attic, etc.)	Duct or Piping R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
Package	TRANE	1	16.00 SEER	ATTIC	R6	0	36000
	YCZ036		12 EER				
G/E	0						
	TRANE						
Coil	YCZ036						
	0						

1. > symbol reads greater than or equal to what is indicated on the CF-1R value.
Include both SEER and EER if compliance credit for high EER air conditioner is claimed.

I, the undersigned, verify that equipment listed above is: 1) is the actual equipment installed, 2) equivalent to or more efficient than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the Energy Efficiency Standards for residential buildings, and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (from the Appliance Efficiency Regulations or Part 6), where applicable.

[Signature] 3/15/06
Signature, Date 1143

New-Century Air Systems
Installing Subcontractor (Co. Name)
OR General Contractor (Co. Name) OR Owner

COPY TO: Building Department
HERS Rater (if applicable)
Building Owner at Occupancy

5000 73RD ST

Sacramento CA 95820

0603232

Site Address

Permit Number

INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

Copies to: Builder, HERS Rater, Building Owner at Occupancy and Building Department

INSTALLER COMPLIANCE STATEMENT

The building was: Tested at Final Tested at Rough-In

INSTALLER VISUAL INSPECTION AT FINAL CONSTRUCTION STAGE:

- Remove at least one supply and one return register, and verify that the spaces between the register boot and the interior finishing wall are properly sealed.
- If the house rough-in duct leakage test was conducted without an air handler installed, inspect the connection points between the air handler and the supply and return plenums to verify that the connection points are properly sealed.
- Inspect all joints to ensure that no cloth backed rubber adhesive duct tape is used

DUCT LEAKAGE REDUCTION

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3

NEW CONSTRUCTION:

Duct Pressurization Test Results (CFM @ 25 Pa)	Measured Values	
1 Enter Tested Leakage Flow in CFM:	40	
2 Fan Flow: Calculated (Nominal: <input checked="" type="checkbox"/> Cooling <input type="checkbox"/> Heating) or <input type="checkbox"/> Measured If Fan Flow is Calculated as 400 cfm/ton x number of tons or as 21.7 cfm/(kBtu/hr) x Heating Capacity in Thousands of Btu/hr, enter total calculated or measured fan flow in CFM here:		
3 Pass if Leakage Percentage < 6% for Final or < 4% at Rough-In: [100 x [400 (Line # 1) / 1200 (Line # 2)]]	3.3%	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out		
4 Enter Tested Leakage Flow in CFM from Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.		
5 Enter Tested Leakage Flow in CFM from Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.		
6 Enter Reduction in Leakage for Altered Duct System [(Line # 4) Minus (Line # 5)] - (Only if Applicable)		
7 Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8 Entire New Duct System - Pass if Leakage Percentage < 6% for Final or < 4% at Rough-In [100 x [(Line # 5) / Line # 2]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out		
Use one of the following four Test or Verification Standards for compliance:		
9 Pass if Leakage Percentage < 15% [100 x [(Line # 5) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
10 Pass if Leakage to Outside Percentage < 10% [100 x [(Line # 7) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11 Pass if Leakage Reduction Percentage > 60% [100 x [(Line # 6) / (Line # 4)]] and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12 Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Pass if One of Lines # 9 through # 12 pass		<input type="checkbox"/> Pass <input type="checkbox"/> Fail

I, the undersigned, verify that the above diagnostic test results were performed in conformance with the requirements for compliance credit. I, the undersigned, also certify that the newly installed or retrofit Air-Distribution System Ducts, Plenums and Fans comply with Mandatory requirements specified in Section 150 (m) of the 2005 Building Energy Efficiency Standards.

[Signature] 3/15/06
Signature Date

New-Century Air Systems
Installing Subcontractor (Co. Name) OR
General Contractor (Co. Name)

Contractor Information										
Contractor Name				Address	City	Zip	Phone	Fax		
New-Century Air Systems	3129 File Cir #130			Sacramento		95827	916-362-2822	916-362-9011		
Company Contact	Est Start	Est Complete	Job Number	Permit Number	License #	Company ID #				
Dave or Joe	3/15/2006	3/17/2006	260206		718740	50003				
Residential Project Information										
Owner's Name/ Project Title	Address			City	Zip	Phone	Fax/ email			
NORRIS, RALPH & SUSAN	5000 73RD ST			Sacramento		95820	379-0565			
County	Bid Dept - Permit From	Utility	Sample	Plan #	Group #	House #				
Sacramento	CITY OF SACRAMENTO	SMUD	7	50003	520A	1143				
Building Information										
Multi Family	# of Dwellings			Front Orientation (N,S,E,W)			Heat Load	BTUs		
Single Family	X	Slab Floor	X	1	E	1	Cool Load	BTUs		
Addition-new rm		Raised Floor		1018	SF		Duct Location	ATTIC		
Alteration-change	X	Climate Zone	12	8	Ft		Garage	Duct -R value	R6	
Equipment Information										
Package Unit	X	Gas / Electric	X	AFUE	80.00	SEER	16	Heat: BTU Input	72,000	BTUs
Split System		Heat Pump		HSPF		EER	12	Cooling: BTUs	36,000	BTUs
Heat System Mfg	TRANE			Condenser Sys Mfg	TRANE			Coil System Mfg	TRANE	
Model #	YCZ036			Model #	YCZ036			Model #	YCZ036	
Serial #				Serial #				Serial #		

Title 24 requirements - contractor and HERS verification check list

CF6R forms on job site	_____	Permit #	_____
Furnace Mfg and model # documented	_____	Duct System - New or Exist	_____
Furnace serial # documented	_____	CFM Leakage	_____
Coil Mfg and model # documented	_____	Leakage pressure	_____
Coil serial # documented	_____	Equipment air flow in CFM	_____
Condenser Mfg and model # documented	_____	System % leakage	_____
Condenser serial # documented	_____	Test Date	_____
TXV verified on split system	_____	ARI #	_____
High EER verified on options	_____	Notes:	_____
Air distribution system fully ducted	_____		
Existing duct tape has draw bands and mastic	_____		
All Supply registers sealed for test	_____		
All Return grilles sealed for test	_____		
Duct blaster w/ rings installed correctly	_____		
Smoke required to pass test	_____		
All register & grille seals removed	_____		
Thermostat turned on after test	_____	Signature	_____