

2003 Colorado Science and Engineering Fair Scientific Review Committee Report

I will begin this year's report with the positives that improved from looking at last year's report and comparing it to this year's problems.

1. I tried sending the SRC Determinations to the Adult Sponsors as well as to the Regional Fair Directors and this seemed to help get faster responses to our questions. However, it would be helpful if everyone would READ the notes at the bottom of the report. This would eliminate a huge number of questions that are directed my way after the reports are sent out.
2. This year, we had 273 projects to review and the SRC Determinations broke out as follows:
Complete Projects – 132 (48.4%)
Incomplete Projects – 69 (27.8%)
Incorrect Projects – 41 (15.0%)
Questionable Projects – 19 (7.0%)
Violations – 3 (1.1%)
I'd like to see the percentage of Complete project get to over 50% this next year and 60% would be even better!
3. Consistency between the Adult Sponsor Checklist Form 1 and the Research Plan Form 1A has gotten better, but we need to make sure they are marked the same and correctly in order to avoid confusion. This same information needs to be transferred over to the CSEF Registration Form.

Now on to the areas that still need improving and some new issues that have come up.

1. We are not gaining on the approval dates issue as quickly as I had hoped. Approval and review of student's research projects is to take place BEFORE any experimentation takes place. This means that all forms (except Form 1C) need to be signed and dated before the research start date that is listed on Form 1A. This year, ISEF has changed this to include a "Projected Start Date" and an "Actual Start Date" on the form under #5. For example, if a student thinks he/she will begin the laboratory portion of the experiment in September, but the background research takes longer than expected, then when the actual lab work begins, he/she can insert that date in the second line. This means that all signatures and forms must be completed before the PROJECTED Start Date.
2. The use of human subjects is really becoming an issue with the CSEF SRC and the ISEF SRC. We need to remember that a human subject is 'a person about whom an investigator (professional or student) conducting research obtains 1) data through active or passive intervention or interaction with the person, or 2) identifiable private information.' If the student is using himself/herself only as 'test subjects', then it is not a Human Subjects project.
There also needs to be a better understanding of what risk is. ISEF defines it in the rulebook on page 14 and I urge you to read that carefully. There have been changes in the Human Subjects Form (4A and 4B were combined into one Form 4). Under the determination of risk, the three choices are:
 - Minimal risk where informed consent is recommended, but not required.
 - Minimal risk where informed consent is REQUIRED.
 - More than minimal risk where informed consent and a Qualified Scientist are REQUIRED.This means that if a project is rejected by the IRB, then the committee does not sign off on it and recommendations for changes or a "not on your life" message is sent to the student.

Also, PLEASE remember that if there are different procedures that the subjects will be taking part in, there needs to be DIFFERENT Form 4's for each procedure. For example, one test group is testing product x and a second group is testing product y, then there needs to be separate consent forms for each group so that they are INFORMED as to what they will be participating in.

3. Finally, we need to stress the importance of detail in students' research plan attachments. A good rule of thumb in writing procedures is that there is enough detail for someone else to duplicate the experimentation (lab) part of the research.